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PATTERNS AND TRENDS IN PROPENSITY
TO ENLIST IN THE MILITARY:

FINDINGS FROM THE 1988
YOUTH ATTITUDE TRACKING STUDY II

Market Research Branch

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**Patterns and Trends in Propensity
to Enlist in the Military:
Findings from the 1988
Youth Attitude Tracking Study II**

**Prepared For
Defense Manpower Data Center**



**Prepared by
Research Triangle Institute**

December 1989

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YATS II is a key component of the Joint Market Research Program which contributes to policy formulation and development of recruitment marketing strategies. The Military Services provide comments and guidance through the Joint Market Analysis and Research Committee (JMARC). YATS II provides annual data about the propensity of young men and women to enlist in the active military and in the Reserve Components. It also measures awareness of military advertising, contact with recruiters, and knowledge of the financial incentives for enlisting. This report describes propensity findings for the 1988 survey and examines trends in propensity over the survey series.

The Project Directors for the 1988 YATS II were Dale S. DeWitt and Dr. Robert M. Bray of Research Triangle Institute. L. Lynn Guess was responsible for instrument development, and Sara C. Wheless for the sampling design. Ronald Smith coordinated data collection at Amrigon, RTI's subcontractor for some of the data collection. Teresa F. Gurley and Nita J. Blake completed the typing and clerical requirements. Special thanks are due to the tireless efforts of the telephone survey staff in completing the interviews, both at RTI and Amrigon; to Dr. Jay R. Levinsohn for Computer Assisted Telephone Interviewing (CATI) design and implementation; to Cheryl Whitacre for CATI programming; and to Dr. Daniel G. Horvitz for his interest and support. Of course, we are indebted to the respondents who provided the data for the study.

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EXECUTIVE SUMMARY

This report examines the expressed propensity of youth to enlist in the active or Reserve components of the Armed Services. Data were drawn primarily from the 1988 administration of the Youth Attitude Tracking Study (YATS), a 30-minute, computer-assisted telephone interview. Approximately 11,000 16- to 24-year-old men and women, representing a population of 16.7 million, were interviewed. Because the purpose of the study was to track attitudes of youth most likely to enlist, more males than females were interviewed, and individuals who had more than two years of postsecondary education or who were already committed to military service were not included in the study. Thus, nearly all (85 percent) of the 16- to 17-year-olds were represented, while only 30 percent of the 22- to 24-year-olds were represented.

Key questions in YATS address youth's plans for the next few years. Respondents were asked specifically about the likelihood that they would be serving in the active or Reserve components of each of the Armed Services. Enlistment propensity is reported as the percentage of youth indicating they would "definitely" or "probably" enlist in the next few years.

As found in previous years, enlistment propensity was highest for 16- and 17-year-olds, and inversely related to age. Among males, 40 percent of 16- and 17-year-olds indicated Composite Active Propensity (i.e. propensity to enlist for active duty in at least one of the four Department of Defense Services -- Army, Navy, Air Force, and Marine Corps), compared to 24 percent of 18- to 21-year-olds and 14 percent of 22- to 24-year-olds. Females followed a pattern similar to males but at lower levels. Composite Active Propensity for females was expressed by 15 percent of 16- and 17-year-olds, 10 percent of 18- to 21-year-olds and 5 percent of 22- to 24-year-olds.

Expressions of propensity for specific Services reflected the same pattern as Composite propensity, with younger respondents indicating greater interest than older respondents, and males showing greater interest than females. Men and women of all age groups expressed enlistment propensity for the Air Force or Army more frequently than for the Navy or

Marine Corps. Further, men and women of all ages except 22- to 24-year-old males indicated interest in the Coast Guard less frequently than in any of the Department of Defense Services.

Propensity for the Reserve Components showed a similar, though lower, overall pattern than propensity to serve in the active military. Male Composite Reserve Propensity was 23 percent for 16- to 17-year-olds, 18 percent for 18- to 21-year-olds, and 13 percent for 22- to 24-year-olds. Female Composite Reserve Propensity was 10 percent for 16- to 17-year-olds, 8 percent for 18- to 21-year-olds, and 4 percent for 22- to 24-year-olds. For the Guard components, propensity was higher for the Army National Guard than for the Air National Guard. For the Reserves, it was highest for the Army and Air Force and lowest for the Coast Guard.

Propensity to enlist was related to various sociodemographic characteristics. Those most likely to express active or reserve enlistment propensity tended to be:

- Black or Hispanic
- male
- unmarried
- still in high school,
- unemployed, but looking for a job.

Aptitude, as inferred from various background characteristics, was related to enlistment propensity. Individuals with above average ability were less likely to express active or reserve enlistment propensity than their lower aptitude peers. For example, 24 percent of high aptitude 16- to 21-year-old males expressed Composite Active Propensity, compared to 41 percent of their low-aptitude counterparts.

Analysis of active propensity data taken from 1976-1988 administrations of YATS showed that propensity among 16- to 21-year-old males was higher during the 1980-1983 period than it was during the preceding years or following years. The average composite propensities for these periods were: 1976-1979, 32 percent; 1980-1983, 35 percent; 1984-1988, 31 percent. Trends in propensities for the Army, Air Force, and Marine Corps showed the same periodic shifts as Composite Active Propensity, but the trend in enlistment propensity for the Navy showed a steady decline over the three time periods.

1. BACKGROUND AND APPROACH

Effective targeting of recruiting efforts requires that the Department of Defense (DoD) and the individual Services understand the backgrounds, attitudes, and motivations of young men and women, and their intentions to serve in the military. The Youth Attitude Tracking Study (YATS) provides data on these issues for the active Services from 1975 through 1982. The Youth Attitude Tracking Study II (YATS II) provides data on these issues for the active military and the Reserve Components since 1983.

In the past, YATS data were reported in a single final report. The reporting format for the 1988 wave of the study is a series of topical reports. Other reports in the series include:

- Military advertising exposure and service images: Findings from the 1988 Youth Attitude Tracking Study II (Bray, Jordan, and Bailey, 1989)
- Geographic location and propensity of young males: Findings from the 1984-1988 Youth Attitude Tracking Study II (Bray, Curtin, Theisen, and York, 1989)

Supplementary Tabulations by Active Service Propensity and Reserve Component Propensity are published in a companion volume (Bray, Cobb, and Theisen, 1989).

This report presents propensity findings from the 1988 YATS II survey and trends in propensity across the survey series. This chapter provides background on recruiting issues and on the YATS survey series, describes the objectives for the 1988 study, and outlines the organization of the report.

A. Recruiting for the United States Armed Forces

The ultimate purpose of all military policies is to recruit, train, and field a force capable of preserving the peace and protecting the vital interests of the United States and its allies. However, to maintain an active duty force of approximately 2.1 million men and women, the U.S. military must recruit and ultimately enlist nearly 300,000 young men and women each year (Hosek, Peterson, and Eden, 1986).

Since the termination of the draft following the Vietnam war, successful recruiting efforts have become the lifeblood of the Services. A number of recruiting strategies have been developed to encourage the enlistment of high quality men and women in the military including varied enlistment periods, enlistment bonuses, educational benefits, and guaranteed job skill training. These approaches combined with the nation's increasingly favorable attitudes toward the military since the 1970s (Davis and Sheatsley, 1985) appear to have been successful. Manpower goals have been met, and the quality of recruits as indicated by the percentages of high school graduates and high scorers on the enlistment test has increased dramatically. The 1980s have generally been boom years for the military. In particular, since 1982, all Services have enjoyed unprecedented recruiting success. This has been particularly notable in the Army where recruits with high school diplomas increased 41 percent, and high-aptitude recruits increased 61 percent. In 1988, 93 percent of Army recruits had high school diplomas, and 66 percent scored in the upper half of the Armed Forces Qualification Test--the AFQT (Tice, 1989).

Despite these successes, attracting a sufficient number of quality recruits for military service has not always been easy, especially for highly technical positions. Moreover, recruiting in the next few years may be problematic as unemployment in the private sector remains relatively low, civilian wages for young people increase, and the size of the 17- to 21-year-old recruit pool continues to shrink (U.S. Bureau of the Census, 1989).

Finding and enlisting qualified men and women for the active military is only part of the recruiting challenge. Reserve components including branches of the Guard (Army and Air National Guard) and Reserves (Army, Navy, Marine Corps, Air Force and Coast Guard Reserve) play an important role in satisfying total manpower needs of the military. Department of Defense policy in peacetime is to maintain the active components at as low a level as possible and place a significant portion of the required wartime strength in the Selected Reserves. Consequently, reserve forces have grown substantially in the past few years, and the missions such units are training to perform are more critical. Indeed, these components provide a substantial portion of the combat support and manpower that would augment active duty units during mobilization.

The increase in both importance and size of the Reserves comes at the end of a difficult period. During the Vietnam War, Reserve and National Guard units easily recruited young men seeking to avoid conscription. These "draft-induced" volunteers left the military as soon as their initial commitment was over, however, and reserve strength fell in the late 1970s. Since then, a renewed effort to make Reserve service more attractive to new recruits without prior military service has resulted in improved compensation, including bonuses and educational benefits; an increase in advertising appeals about reserve service for young people; and improved training, equipment, and facilities, which have made reserve service more "meaningful" to the participants.

Clearly, individuals in the Reserves and National Guard differ from personnel serving on active duty and are interested in different aspects of the military experience (e.g., a part-time vs. full-time commitment, compensation packages, and local community identity and cohesiveness). Thus, recruiting for the Reserve Components requires approaches and appeals that are distinct from those for active military service. Nonetheless, regardless of whether recruiting is dealing with active military or the Reserve Components, there is a continuing need for systematic data on the backgrounds, attitudes, and intentions of young men and women to affiliate with the military. Various studies have addressed selected aspects of these issues. See, for example, the discussions linking success and recruit age (Bowers, 1976); quality, aptitude, and educational level (Goldman and Segal, 1976; Orvis and Gahart, 1989); and such issues as employment, family support, or geographic region (Back, 1973). Although these studies are useful, the Youth Attitude Tracking Study (YATS) provides the most systematic data to help guide and inform recruiting efforts.

B. YATS Survey Series

YATS began in the fall of 1975 as a semi-annual, paper-and-pencil telephone survey of young males aged 16 to 21. In the fall of 1980, YATS became an annual survey, and females aged 16 to 21 were added. In 1983, several methodological changes, improvements, and refinements were made, and the series was designated as YATS II. These changes included new

market coverage, more sophisticated sampling and data collection methodologies, and new analytical approaches.

Expanded market coverage encompassed two approaches. The first approach was to broaden the target age groups. In 1983, older males aged 22 to 29 years were included in the sample. In 1986, this older male market group was redefined to include only 22- to 24-year-olds, and older females in the same age range were added to the study. The second approach to expanding market coverage was to include Reserve Components in addition to the active military. Before 1983 the Reserve Component Attitude Study (RCAS) provided data on the reserves. In 1983, YATS II was reconfigured to merge the former YATS and the non-prior service portion of RCAS into a single study.

A sophisticated sampling design based on the Waksberg (1978) random digit dialing procedure was introduced in YATS II. The design allocates the sample across 66 Military Entrance Processing Station (MEPS) areas to meet DoD-specified precision requirements. Using this design, data for the study are obtained with an advanced Computer Assisted Telephone Interviewing (CATI) system. The CATI system manages screening and interviewing activities, issues telephone numbers, and controls call-back appointments. It also controls skip patterns in the questionnaire, permits resolution of inconsistent responses for key questionnaire items, and creates a high quality data set.

New approaches to analyses in YATS II include use of multivariate procedures and market segmentation analyses. Regression analyses have been used to better understand the contribution of variable combinations in predicting propensity. Market segmentation has been used to target recruiting efforts more effectively. From 1983 to 1985, segmentation analyses used a classification of Recruiting Priority Groups (RPGs) to indicate recruit quality for young males and young females. The analyses for the 1985 wave of YATS II included the RPG analysis and an alternate market segmentation approach based on high school status and predicted Armed Forces Qualification Test (AFQT) scores. The predicted AFQT aptitude segmentation approach has been continued since 1985 and has been expanded for 1988.

From its inception, YATS has served as a tracking study to monitor young people's propensity to join the military. Assessing respondents' positive propensity (i.e., responses that individuals "definitely" or "probably" will join at least one of the Services) is a primary focus for the entire YATS survey series.

Market Facts Incorporated conducted the YATS surveys from 1975 through 1982. The Research Triangle Institute has conducted the YATS II surveys since 1983.

C. 1988 YATS II Objectives

The 1988 wave of YATS II provides current information on the background and attitudes of young adults and their intentions to join the military. The survey was guided by a number of broad objectives:

- Assess current levels of propensity to enlist in the active military service and in the Reserve Components
- Assess trends over time in propensity to enlist in the military
- Measure attitudes and motivations of potential recruits, especially as these relate to enlistment propensity
- Provide an AFQT-based market segmentation analysis for young males and young females

The 1988 YATS II survey builds upon the findings of the prior YATS studies to begin to provide an integrated understanding of the factors affecting the enlistment propensity of men and women.

D. Organization of the Report

This report describes propensity of young men and women to join the military. Findings are based primarily on data from the 1988 YATS II survey, but analyses on trends draw on data from prior YATS surveys. The general methodology for the study is described in Chapter 2, including a

discussion of the sampling design, data collection and survey performance rates, measurement approaches, and characteristics of the YATS II population.

Chapters 3 and 4 examine propensity to join the active military and Reserve Components, respectively. The chapters are similar in organization and approach and include discussions of composite and Service-specific propensity, demographic profiles of groups with positive propensity, and the relationship between positive propensity and predicted AFQT scores.

Chapter 5 examines trends in propensity to join the active military. Findings from the 1988 survey are contrasted with those from prior waves of YATS surveys for each of the four market groups. In addition, trends are examined for propensity and unemployment rates for young males and young females.

Chapter 6 summarizes the key findings for the report.

2. METHODOLOGY AND POPULATION CHARACTERISTICS

This chapter describes the methodology for the 1988 YATS II survey and characteristics of the YATS population. The discussion of methods includes the sampling design, data collection, and measurement approaches.

A. Sampling Design

The 1988 YATS II survey was designed to obtain information from four market groups most likely to enlist in the military:

- Young Males aged 16-21,
- Older Males aged 22-24,
- Young Females aged 16-21, and
- Older Females aged 22-24.

To be eligible for inclusion in this study, individuals had to reside in the continental United States in households or noninstitutional group quarters with telephones. This includes traditional households of close relatives and households of up to 10 unrelated individuals living together who share the same phone (e.g., roommates in an apartment). Students in college dormitories were included if they had private phones in their rooms but were excluded if they were served only by a central hall phone. Eligible individuals could have completed no more than two years of college. Military personnel, including those in the Delayed Entry Program and those with prior military service (other than high school ROTC), were excluded.

The sample size and allocation for each of the four markets were determined from DoD specifications of precision requirements for estimates of propensity. Young males were the market of primary interest for YATS II and, accordingly, the sample size was determined by the number of households needed to meet the precision requirements specified for this group. Since the number of households required to meet the sample size for young males produced more eligible individuals for the other three market groups than were needed to satisfy the precision requirements, subsamples of these groups were selected for interview.

The YATS II sampling design is based on the Waksberg random digit dialing procedure (Waksberg, 1978). Under this procedure, telephone numbers are called in two stages to identify households. First-stage calls are made to randomly selected telephone exchanges. Exchanges yielding a household on the first number called are designated as clusters. In the second stage, numbers within these clusters are generated to find additional households. This approach is efficient because many exchanges have disproportionately high percentages of residential telephone numbers. When the first call to an exchange reaches a household, subsequent calls to the same exchange are more likely to reach households than when the first call to an exchange does not reach a household.

B. Data Collection

1. Survey Questionnaire

Data for the YATS II survey consist of responses to a questionnaire administered in a 30-minute computer assisted telephone interview. The 1988 survey questionnaire is similar to the 1987 questionnaire and consists of four sections. Section A contains primarily education and employment items. Sections B and C contain items about propensity toward the active Services and the Reserve Components, and general awareness about military pay, bonuses, educational benefits, requirements of the Reserve Components, and other selected issues. Section D contains items on advertising, recruiter contact, and respondent demographics.

Items added to the 1988 survey questionnaire focus on respondents' participation in selected military events (e.g. band concert, firepower drill, parade, visit to a ship) and attitudes about a national service program. Selected items about family composition that were in the 1987 questionnaire were deleted in the 1988 version. A copy of the questionnaire is in the volume of supplementary tabulations (Bray, Cobb, and Theisen, 1989).

2. Procedures

The 1988 YATS II used a Computer Assisted Telephone Interviewing (CATI) system for all phases of data collection. With this system,

questionnaires for screening (eligibility determination), interviewing, and verification are programmed, entered, and stored within the computer. Instructions and questionnaire items appear on the screen in the proper sequence. Inconsistent, invalid, and incomplete responses are resolved as an ongoing part of the interview.

Data were collected in a two-phased approach from July 24 to November 10, 1988. Phase 1 consisted of calls to identify households, and Phase 2 consisted of household screening to identify members eligible for the study and then interviewing these individuals. Overall, 263,871 telephone numbers were called to identify 107,786 households. From these households, 13,403 eligibles for the study were identified and selected for interviews. Analyses for the study were based on 10,985 interviews (5,486 for young males, 1,130 for older males, 3,271 for young females, 1,098 for older females).

3. Performance Rates

Interview completion rates and overall response rates were calculated for each of the four market groups to assess the quality of survey field operations and the potential for nonresponse in the data. As shown in Table 2.1, interview completion rates, which were computed as the percentage of completed interviews out of the total number of eligibles selected, were highest among young males and young females followed by older females and older males. Overall response rates, which were computed by multiplying the interview completion rates by the household screening rates, followed the same ranking noted for interview completion rates.

A thorough effort was made to obtain high response rates within the given schedule constraints. Numerous calls were made to complete household screening for all sample numbers and to administer a questionnaire to all selected eligibles.

C. Measurement Approach

Analyses in the current study focus on propensity, including unaided mentions to enlist in the military. Some analyses focus on market segmentation. This section describes the measures of propensity, unaided mentions, and the AFQT and educational status market segmentation approach.

Table 2.1. Survey Performance Rates

Performance Rate	Market Group			
	Young Males	Older Males	Young Females	Older Females
Interview Completion Rate	77.3	66.3	76.4	73.7
Overall Response Rate	74.6	63.9	73.6	70.9

Note: Tabled values are percentages.

1. Measures of Active Propensity

Propensity for active military service is assessed by five questions asking the likelihood of serving in each of the active Services: the Army, the Navy, the Marine Corps, the Air Force, and the Coast Guard.

These questions were asked with the following format:

Now, I'm going to read you a list of several things which young (men/women) your age might do in the next few years. For each one I read, please tell me how likely it is that you will be doing that.

How likely is it that you will be serving on active duty in the _____ (Army, Navy, Marine Corps, Air Force, Coast Guard)? Would you say

Definitely,
Probably,
Probably not, or
Definitely not?

For each of the Services, positive propensity is defined as having answered "definitely" or "probably"; negative propensity is defined as having answered "probably not," "definitely not," "don't know," or "refuse" to the question.

The Service-specific propensity items for the Army, Navy, Marine Corps, and Air Force (Coast Guard is omitted) form the measure of Composite Active Propensity used in this report. Composite Active Propensity is defined as the most positive response given to any of the four questions assessing propensity to join these individual active-duty Services. A respondent who indicates that he or she would "probably enlist" in the Army, but "probably not enlist" in the Navy, the Air Force, or the Marine Corps, for example,

is assigned a value of "probably enlist" on the Composite Active Propensity measure. Respondents with values of "definitely enlist" or "probably enlist" on the composite measure are considered to have "positive propensity." Respondents with values of "probably not," "definitely not," "don't know," or "refuse" on the composite measure are considered to have "negative propensity."

2. Measures of Reserve Propensity

The assessment of reserve propensity is similar to that of active propensity. It is based on answers to a question about joining the National Guard and a question about joining the Reserves. They were asked as follows:

How likely is it that you will be serving in the _____
(National Guard, Reserves)? Would you say

Definitely,
Probably,
Probably not, or
Definitely not?

The answers to these two questions became the respective measures of propensity to join the National Guard and propensity to join the Reserves. A Composite Reserve Propensity measure was constructed from the answers to these two likelihood items in the same manner as the Composite Active Propensity measure.

3. Measure of Unaided Mentions

Another measure used to assess propensity to join the military is termed "unaided mentions" and refers to an answer volunteered without an interviewer prompt. The unaided mention measure was obtained by the question:

Now, let's talk about your plans for the next few years. What do you think you might be doing?

An unaided mention was recorded when the respondent indicated his or her intention to join the military in general or one of the Services. After

stating such an intention, the respondent was asked what Service he or she planned to join (where not already indicated) and whether the type of service would be active duty, the Reserves, or the National Guard.

4. AFQT and Educational Status Market Segmentation

Enlisting high quality recruits becomes increasingly important to the Services as military equipment and systems become more technically advanced and sophisticated. High quality recruits are generally defined as high school diploma graduates who score in Categories I-IIIA (percentiles 50-99) on the Armed Forces Qualification Test (AFQT). Measures of predicted AFQT scores and educational status are examined to provide insights about recruiting difficulties and opportunities among target populations.

Orvis and Gahart (1989) of the RAND Corporation developed the predicted AFQT approach. The goal of the segmentation analysis was to develop a series of equations to estimate the probability that an individual would obtain a score at or above the 50th percentile on the AFQT (Categories I-IIIA). The equations were developed using young male respondents from the 1976-1980 fall administrations of YATS who subsequently took the AFQT. The equations are used to estimate the probability that an individual would fall in Category I-IIIA or, conversely, would fall in Category IIIB-V (percentiles 1-49).¹ The variables used to predict AFQT category included such objective information as age, race, geographic region, father's education, number and type of high school math courses completed, approximate high school grades, current job and educational status, and other information such as general intention to enlist, recruiter contact, perceived ease of finding full-time employment, and having talked with one's parents about enlisting.

¹/Note that each of the two AFQT-category subgroups is composed of the entire set of respondents. Data for all individuals (or the appropriate subgroup such as high school seniors) were entered into the calculations for both Categories I-IIIA and IIIB-V. This was accomplished by using the probability that each individual would fall into Categories I-IIIA (High Wt.) for the first set of calculations and then using the probability that that individual would fall into Categories IIIB-V (1-High Wt.) for the second set. In each case, this probability was used to weight the propensity measure.

The educational status measure divides respondents into five categories: Postsecondary students (high school graduates attending college, or a business vocational school); high school diploma graduates (graduates not enrolled in further schooling); high school seniors; younger high school students; and non-completers (those not in school who do not have regular high school diplomas, including those with GED or ABE certificates).

Combining the measure of predicted AFQT status with the measure of educational status resulted in the following 10 groups:

- Postsecondary students - Category I-IIIA
- Postsecondary students - Category IIIB-V
- High school graduates - Category I-IIIA
- High school graduates - Category IIIB-V
- High school seniors - Category I-IIIA
- High school seniors - Category IIIB-V
- Younger high school students - Category I-IIIA
- Younger high school students - Category IIIB-V
- Non-completers - Category I-IIIA
- Non-completers - Category IIIB-V.

The mean estimated probability of being in AFQT Categories I-IIIA among young males was .746 for postsecondary students, .530 for high school graduates, .635 for high school seniors, .506 for younger high school students, and .349 for non-completers. Among young females, the mean estimated probability of being in Categories I-IIIA was .654 for postsecondary students, .490 for high school graduates, .594 for high school seniors, .524 for younger high school students, and .388 for non-completers.²

2/The female YATS sample in the years measured was too small to develop meaningful equations. Thus, the models developed for the male respondents were used for the females as well. This may account in part for the lower probabilities of females scoring in Categories I-IIIA. Both male and female younger high school students had lower probabilities of scoring in AFQT Categories I-IIIA than seniors. This may be because the younger student group includes individuals with lower AFQT scores who will drop out of school before their senior year. The lower probability for graduates is most likely due to the exclusion of individuals in their third or fourth years of college from the YATS sample.

D. Characteristics of YATS Population

The description in this section of the sociodemographics of the YATS population provides a perspective on individuals being targeted for military service. It begins by discussing the age distribution of the YATS population and contrasting the age distribution to those of other segments of youth and young adults. It then examines marital, school, and employment status.

The tables in this section generally show separate estimates for three age groups: 16- to 17-year-olds, 18- to 21-year-olds, and 22- to 24-year-olds. Table A.1 in the appendix summarizes the demographic characteristics for the four market groups of 16- to 21-year-old young males and females and 22- to 24-year-old males and females.

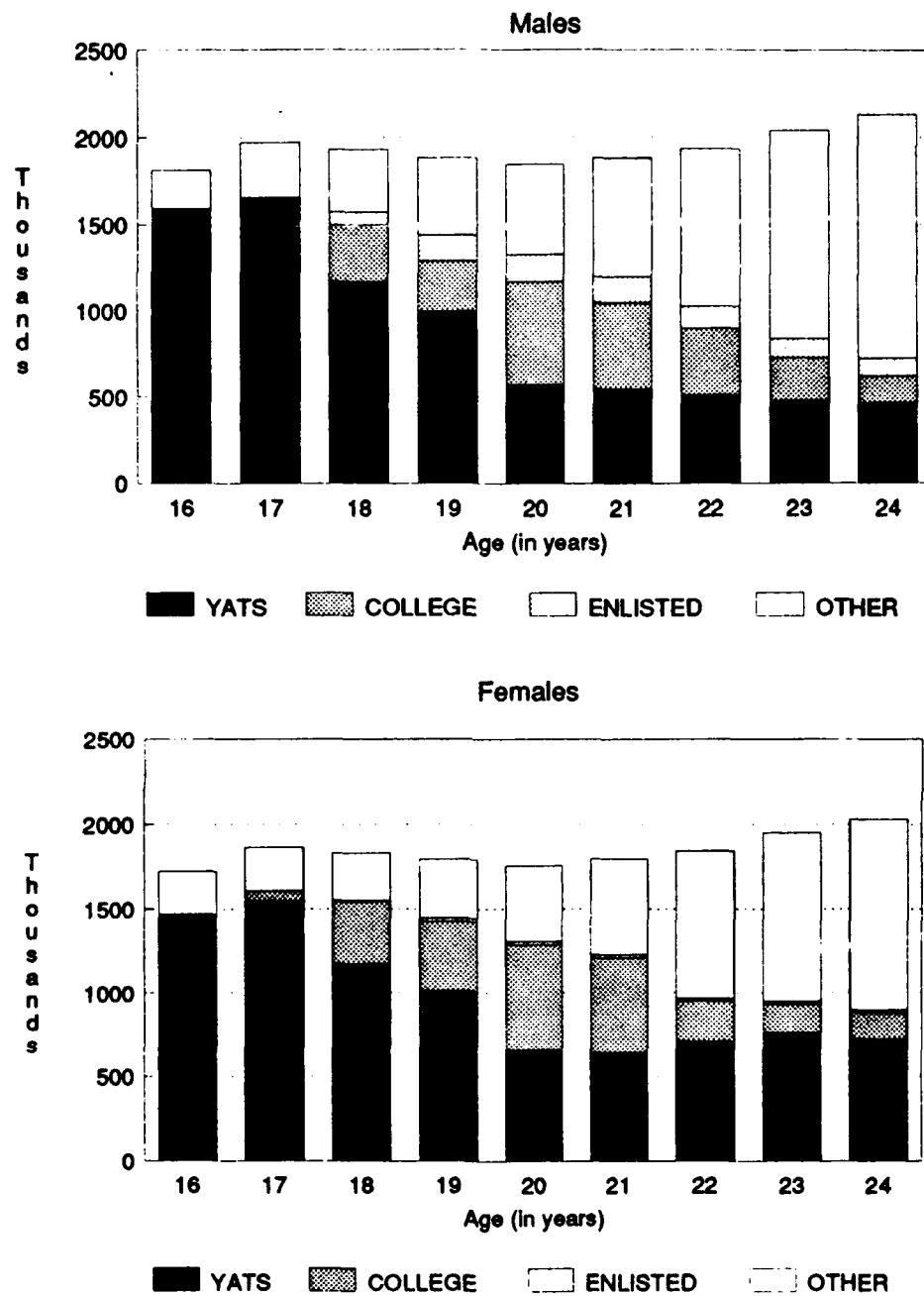
1. Age Distribution and Estimated Population Counts

Table 2.2 presents the age distribution of YATS respondents and the estimated age distribution of the YATS population. The unweighted sample sizes indicate the number of interviews on which the estimates are based (5,486 young males; 3,271 young females; 1,130 older males; 1,098 older females). As shown, the estimated YATS population consists of approximately 6.5 million young males and 6.5 million young females aged 16 to 21 years. Approximately half of the young males and females are 16 or 17 years old. The numbers decrease as age increases from 18 to 21 years due to the YATS eligibility criteria. That is, those beyond the second year of college or with military experience are not included in the survey. For older males and females (22 to 24 years), the population is more equally distributed across the ages (approximately one-third each) although females outnumber males. Estimated population counts are 1.4 million older males and 2.2 million older females.

Figure 2.1 shows the age distribution of the YATS population and the general youth and young adult populations and their relationship by dividing the general population into four subpopulations:

- YATS population: young men and women aged 16 to 24 who have not served in the military or are not beyond the second year of college (who have telephones)

Figure 2.1. Counts of Males and Females in YATS, Enlisted Military^a, College, and Other^b Subpopulations



^aIncludes counts of enlisted personnel and those in the delayed entry program.

^bIncludes counts of individuals excluded from YATS sampling frame (e.g., Alaskans, Hawaiians, those beyond the second year of college, military veterans, and those without phones).

Source: 1988 YATS; Haggstrom, Shavelson, & Blaschke, 1989; U.S. Bureau of the Census, 1989.

- Non-YATS college population: young men and women aged 16 to 24 enrolled in college who are not in the YATS population
- Military population: young men and women aged 16 to 24 not in YATS or the college population who are enlisted in the military or in the Delayed Entry Program
- Others: young men and women aged 16 to 24 not in the other populations above such as those from Alaska and Hawaii, military veterans, those beyond the second year of college, and those without phones.

Table 2.2. Age Distribution of the YATS Survey Population

Age	Males			Females		
	Unweighted N	Estimated Count ^a	Percent	Unweighted N	Estimated Count ^a	Percent
<u>Younger</u>						
16	1,333	1,589	24.4	748	1,468	22.6
17	1,436	1,653	25.3	790	1,547	23.8
18	987	1,168	17.9	591	1,172	18.0
19	787	998	15.3	503	1,014	15.6
20	504	571	8.8	329	656	10.1
21	439	542	8.3	310	642	9.9
Total	5,486	6,521	100.0	3,271	6,500	100.0
<u>Older</u>						
22	394	509	35.4	351	711	32.4
23	367	473	32.8	382	764	34.8
24	369	458	31.8	365	722	32.9
Total	1,130	1,440	100.0	1,098	2,196	100.0

Note: The age distributions for each sex were developed from two complex samples of younger (16-21 years) and older (22-24) individuals. Consequently, totals and percentages across the age groups cannot be computed.

^aPopulation counts are in thousands. Estimates are based on some variables for which there may be missing information.

Source: Questions 402, 403.

Data for Figure 2.1 were compiled from Census data (U.S. Bureau of Census, 1989) education data (Haggstrom, et. al, 1989), military enlistment data and 1988 YATS data. As shown, the size of the total population at each age is nearly constant for both males and females, but the relative proportions of the subpopulations change as age rises from 16 to 24. As shown, the YATS population comprises the large majority (85 percent) of the total population for 16- and 17-year-olds but becomes proportionately smaller from ages 18 to 20 and remains at relatively low levels from ages 21 to 24 (though it increases some for females). The non-YATS college age population is proportionately largest for 19- to 21-year-olds. The size of the military population is very small but relatively constant for each age (excluding 16- and 17-year-olds). The "Other" population is very small for younger ages and becomes larger as age increases.

Overall, Figure 2.1 shows a relatively stable count of males and females at each age but dramatic shifts across age in the relative proportions of the subpopulations. The YATS population decreases dramatically and the "Other" population increases.

2. Marital Status, Sex, and Age

Table 2.3 presents the marital status of the YATS population partitioned by sex and age group. The differences apparent in this table are primarily a function of age, with a higher frequency of marrieds among those who were older. Additionally, males were less likely to be married than females of the same age. Few of the very young males or females in the population had ever married (0.7 percent for 16- to 17-year-old males and 1.2 percent for same age females). By ages 18 to 21, however, 20.9 percent of the females were married or were widowed, divorced, or separated compared with 5.5 percent of the males. The highest percentages of the population who had married were in the oldest group, 22- to 24-year-olds (61.4 percent of the older females and 35.5 percent of the older males). Almost all of the primary market of 16- to 21-year-old males were unmarried.

3. School Status, Sex, and Age

Table 2.4 provides population estimates and percentages of the population by school status, sex, and age. The 16- to 17-year-olds were

Table 2.3. Marital Status of Participants by Sex and Age Range

Sex/Marital Status	Age Range					
	16-17		18-21		22-24	
	Estimated Population	Count	Percent	Estimated Population	Count	Percent
Males						
Never married	3,202	99.3		3,084	94.5	922
Currently married	14	0.4		157	4.8	461
Others*	10	0.3		23	0.7	45
Total	3,226	100.0		3,264	100.0	1,428
Females						
Never married	2,959	98.8		2,746	79.2	842
Currently married	31	1.0		810	17.6	1,114
Others*	6	0.2		113	3.3	228
Total	2,996	100.0		3,468	100.0	2,184

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information. Percent distributions may not sum to 100.0 due to rounding.

*"Other" includes widowed, divorced, and separated.

Source: Questions 402, 403, and 713C.

predominantly high school seniors (33.0 percent males, 36.9 percent females) or younger high school students (46.2 percent males, 43.8 percent females). Most of the remaining 16- to 17-year-olds were non-completers (i.e., they had not graduated from and were not currently attending a regular high school). This included 18.0 percent of the males and 16.4 percent of the females. The percentage with high school diplomas increased as the population aged. Among 18- to 21-year-olds, for example, 37.6 percent of the males and 42.7 percent of the females had completed high school. Further, 29.5 percent of the males and 33.1 percent of the females in this age group had graduated and were attending college or business/vocational school. Very few of the 22- to 24-year-olds remained in high school, and approximately two-thirds had high school diplomas and were no longer in school. The percentage of 22- to 24-year-olds in postsecondary school was also lower than the percentage of 18- to 21-year-olds (9.6 percent males, 8.5 percent females). Approximately one-quarter of the oldest age group were non-completers (26.3 percent males, 23.3 percent females).

Table 2.4. School Status of Participants by Sex and Age Range

Sex/School Status	Age Range					
	16-17		18-21		22-24	
	Estimated Population	Count	Percent	Estimated Population	Count	Percent
Males						
Postsecondary students ^a	60	1.6	967	29.5	138	9.6
High school graduates	31	1.6	1,232	37.6	923	64.1
High school seniors	1,071	33.6	236	7.2	--	--
Younger high school students	1,497	46.2	54	1.6	--	--
Non-completers	583	18.0	791	24.1	379	26.3
Total	3,242	100.0	3,280	100.0	1,440	100.0
Females						
Postsecondary students ^a	80	2.0	1,152	33.1	187	8.5
High school graduates	29	0.9	1,486	42.7	1,497	68.2
High school seniors	1,112	36.9	122	3.5	--	--
Younger high school students	1,319	43.8	18	0.5	--	--
Non-completers	495	16.4	706	20.3	511	23.3
Total	3,015	100.0	3,485	100.0	2,198	100.0

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information. Percent distributions may not sum to 100.0 due to rounding.

^aPostsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 406, 407, and 408A.

4. School Status, Employment Status, and Age

Table 2.5 presents the school and employment status of the YATS population by age group for males. Many of the differences apparent in this table are related to respondent age. Males aged 16 to 17 were likely to be full-time students and, thus, to hold part-time jobs or no job. Among 16- to 17-year-olds only 6.9 percent of high school seniors and 4.0 percent of younger high school students were full-time employees although 12.5 percent of non-completers held full-time jobs. In contrast, 45.3 percent of the high school seniors and 34.9 percent of the younger

Table 2.5. School Status and Employment Status of Males

Age/School Status	Employment Status			
	Employed Full-Time	Employed Part-Time	Not Employed, Looking	Not Employed, Not Looking
<u>16-17</u>	(N=206)	(N=1,046)	(N=733)	(N=776)
Postsecondary students*	-- --	-- --	-- --	-- --
High school graduates	-- --	-- --	-- --	-- --
High school seniors	6.9 (1.2)	45.3 (2.3)	19.6 (1.7)	28.2 (2.0)
Younger high school students	4.0 (0.8)	34.9 (2.1)	30.0 (1.9)	31.2 (1.9)
Non-completers	12.5 (1.7)	32.4 (3.0)	30.8 (3.0)	24.3 (3.1)
Total	6.9 (0.8)	37.9 (1.4)	26.5 (1.2)	28.7 (1.2)
<u>18-21</u>	(N=1,388)	(N=634)	(N=367)	(N=322)
Postsecondary students*	26.6 (2.4)	39.9 (2.3)	9.6 (1.2)	23.9 (2.1)
High school graduates	79.1 (1.9)	10.3 (1.6)	8.2 (1.1)	2.4 (0.5)
High school seniors	12.4 (2.7)	39.8 (4.9)	30.0 (6.3)	17.8 (3.3)
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	57.2 (3.3)	16.3 (2.1)	19.4 (3.3)	7.1 (1.3)
Total	52.4 (1.5)	22.8 (1.1)	13.6 (1.2)	11.2 (0.8)
<u>22-24</u>	(N=907)	(N=101)	(N=81)	(N=36)
Postsecondary students*	55.1 (8.4)	25.6 (6.4)	8.4 (3.2)	10.9 (3.9)
High school graduates	87.4 (1.5)	7.0 (1.2)	4.8 (0.9)	0.8 (0.4)
High school seniors	-- --	-- --	-- --	-- --
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	75.0 (2.9)	9.9 (1.9)	8.8 (1.7)	6.4 (1.7)
Total	81.0 (1.4)	9.5 (1.2)	6.2 (0.8)	3.2 (0.7)

Note: Tabled values are row percentages with standard errors in parentheses.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403 404, 406, 407, 408A, 416, and 417.

high school students held part-time jobs. Many of this age group had no employment (47.8 for seniors and 61.2 percent for younger students), though about half of those not employed were searching for work.

Individuals aged 18 to 21 were more likely to be employed full time (52.4 percent) than those who were younger (6.9 percent) and were less likely to be employed part-time or to be not employed. As might be expected, the percentage of 18- to 21-year-olds who had high school diplomas or were in postsecondary school who were not employed and looking for work was quite low (8.2 percent for high school graduates, 9.6 percent for postsecondary students).

Table 2.6. School Status and Employment Status of Females

Age/School Status	Employment Status			
	Employed Full-Time	Employed Part-Time	Not Employed, Looking	Not Employed, Not Looking
<u>16-17</u>	(N=70)	(N=828)	(N=413)	(N=420)
Postsecondary students*	-- --	-- --	-- --	-- --
High school graduates	-- --	-- --	-- --	-- --
High school seniors	4.8 (1.1)	49.0 (2.4)	21.8 (2.0)	24.5 (2.1)
Younger high school students	1.9 (0.8)	38.3 (2.2)	30.5 (2.0)	31.4 (2.2)
Non-completers	7.6 (1.7)	35.1 (3.4)	28.5 (3.2)	28.8 (3.3)
Total	4.5 (0.6)	40.6 (1.4)	27.0 (1.3)	28.0 (1.3)
<u>18-24</u>	(N=835)	(N=488)	(N=278)	(N=330)
Postsecondary students*	19.3 (1.9)	43.9 (2.4)	15.7 (1.7)	21.2 (2.3)
High school graduates	58.1 (2.1)	17.5 (1.5)	13.9 (1.4)	12.6 (1.5)
High school seniors	14.1 (4.5)	35.0 (8.8)	27.5 (6.8)	23.4 (6.8)
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	29.8 (2.8)	18.7 (2.4)	19.5 (2.4)	32.2 (2.8)
Total	38.8 (1.3)	27.1 (1.2)	16.1 (1.0)	19.9 (1.2)
<u>22-24</u>	(N=574)	(N=189)	(N=101)	(N=253)
Postsecondary students	49.3 (6.3)	23.9 (6.0)	7.1 (3.3)	19.6 (4.3)
High school graduates	58.9 (2.2)	14.1 (1.5)	9.3 (1.3)	19.8 (1.7)
High school seniors	-- --	-- --	-- --	-- --
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	37.4 (3.4)	16.6 (2.8)	12.3 (2.6)	33.7 (3.6)
Total	51.6 (1.8)	16.6 (1.3)	9.9 (1.1)	23.0 (1.5)

Note: Tabled values are row percentages with standard errors in parentheses.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 406, 407, 408A, 418, and 417.

Nine out of 10 of the 22- to 24-year-old males were employed either full time or part time. Postsecondary students, high school graduates, and non-completers have similar high employment rates, but postsecondary students were more likely to be employed part time than the other groups.

Table 2.6 presents employment and school status data for females like that for males in Table 2.5. Most of the 16- to 17-year-old females were not employed (55.0 percent) or had part-time positions (40.6 percent). Most of the other patterns of employment and school status for these 16- to 17-year-old females are similar to those seen earlier for males of the same age.

Sex differences in employment status become apparent in the older groups. Females were less likely to be employed full time and, conversely, more likely to be employed part time or not at all than males of the same age group. For example, 79.1 percent of 18- to 21-year-old male high school graduates were full-time employees compared with 56.1 percent of females. This pattern is even more noticeable among the 22- to 24-year-old males and females (87.4 percent of male high school graduates were employed full time compared with 56.9 percent of females).

5. Summary of Population Characteristics

Four sociodemographic characteristics of the YATS population were examined: age, marital status, school status, and employment status. The YATS population comprised about 85 percent of the total youth population for 16- and 17-year-olds, but was proportionately smaller from ages 18 to 20 and remained at relatively low levels from ages 21 to 24 (about 30 percent). The decline in size across age was due to YATS eligibility criteria that excluded youth from the sample if they had military experience or were beyond the second year of college.

Marital status, school status and employment status were all related to age, and marital status and employment status were also related to sex of the YATS population. Marital status showed normal life cycle processes. Those who were older were more likely to be married than those who were younger and females were more likely than males to be married.

School status followed an expected age cycle. The 16- to 17-year-olds were predominately high school seniors or younger high school students, whereas 18- to 21-year-olds were most likely to be high school graduates not enrolled in school or postsecondary students (i.e., graduates attending college or business/vocational school). Most 22- to 24-year-olds had completed school and were high school graduates (not attending school).

Employment status showed a steady progression toward full-time work from part-time employment or unemployment as age increased. In general, those who were not employed or employed part time were students attending high school or postsecondary school. Females followed the same general employment pattern as males although at lower levels. More females than males were not employed and not looking for work.

3. PROPENSITY FOR THE ACTIVE MILITARY SERVICES

This chapter examines the basic findings from analysis of the 1988 YATS II data on the likelihood of enlistment in each of the active Military Services. We first discuss composite and Service-specific propensity results for 1988. Next we examine demographic profiles of propensity groups. We then examine propensity for higher and lower aptitude youth.

A. Composite Active and Service-Specific Propensity

1. Overall Propensity Findings

Table 3.1 presents the percentage of the YATS population expressing positive Composite Active Propensity, (i.e. expressing propensity to enlist in one of the four DoD Services) as well as positive propensity to enlist in the Army, Navy, Marine Corps, Air Force, and Coast Guard. As shown, there is a clear pattern for propensity to decline significantly as age increases. Less than half as many 22- to 24-year-old males (14.0 percent) expressed positive Composite Active Propensity as 16- to 17-year-old males (39.9 percent). Females showed the same pattern of results as males, although, positive Composite Active Propensity in each age group was lower than the percentage for the comparable male group.

Overall, propensity for the Army and the Air Force was consistently higher than propensity for the other Services. The 16- to 17-year-old males, for example, had significantly higher propensity for the Air Force (21.3 percent) and the Army (18.4) than for the Navy (15.1), Marine Corps (14.0), or Coast Guard (8.9). Similar patterns were also exhibited by females in both the 16- to 17- and 18- to 21-year-old groups, where propensity for the Army was significantly higher than propensity for the Marine Corps or Coast Guard. Propensity for the Air Force was also significantly higher than propensity for the Navy, Marine Corps, or Coast Guard.

Differences in propensity among the Services were not statistically significant among 18- to 24-year-old males or 22- to 24-year-old females. Propensity for the Coast Guard was consistently lowest among the Services for all age groups except the oldest male age group.

Table 3.1. Positive Active Propensity by Sex and Age Range

Propensity Measure	Males			Females		
	16-17 (N=2,769)	18-21 (N=2,717)	22-24 (N=1,130)	16-17 (N=1,538)	18-21 (N=1,723)	22-24 (N=1,696)
Composite ^a	39.9 (1.3)	24.4 (1.4)	14.0 (1.3)	14.9 (1.0)	9.9 (0.9)	5.0 (0.8)
Army	18.4 (1.0)	12.6 (1.1)	6.3 (0.9)	6.8 (0.7)	5.2 (0.7)	2.6 (0.6)
Navy	15.1 (1.0)	9.6 (1.0)	4.7 (0.7)	5.6 (0.6)	3.7 (0.6)	2.2 (0.5)
Marine Corps	14.0 (0.9)	9.9 (1.0)	4.8 (0.7)	3.9 (0.5)	2.7 (0.5)	1.6 (0.4)
Air Force	21.3 (1.1)	11.6 (0.9)	6.8 (0.9)	8.9 (0.8)	6.8 (0.7)	3.4 (0.6)
Coast Guard	8.9 (0.8)	7.3 (0.8)	5.2 (0.8)	3.2 (0.5)	2.5 (0.4)	1.5 (0.4)
Unaided Mentions	8.8 (0.8)	4.5 (0.8)	0.5 (0.2)	1.2 (0.3)	1.3 (0.3)	0.5 (0.2)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

^aPropensity to serve in at least one active Service excluding the Coast Guard.

Source: Questions 402, 403, 438, 441, 509-513.

Table 3.1 also presents the percentages for males and females of each age expressing unaided mentions of interest in joining one of the active Services. Males aged 16 to 17 (8.8 percent) and 18 to 21 (4.5 percent) showed significantly greater interest in joining the military than males aged 22 to 24 (0.5 percent). The older males and all females in the population had very little interest in the military as indicated by unaided mentions (approximately one percent or less).

Table A.2 presents these same data arranged for the traditional groupings of 16- to 21-year-old young males and females and 22- to 24-year old males and females. Table A.3 shows the full distribution of responses to the propensity measures.

Overall, these propensity data clearly show that interest in the military is higher among those who are younger and that more individuals are inclined to enlist in the Army and Air Force than in the other Services.

2. Propensity for One and Two Services

The estimates just discussed (Table 3.1) are based on all mentions of each Service, including mentions of only one Service and those for more than one Service. Table 3.2 presents the percentage of the YATS population

who expressed enlistment propensity for only one Service. The propensity for only one Service follows the pattern seen earlier for the Services overall although the percentages are much smaller. There was more interest in the Air Force and Army than in the Navy, Marine Corps, or Coast Guard. Propensity for the Air Force alone was consistently highest for all age groups and both sexes and was significantly higher among 16- to 17-year-old males (6.6 percent) and 16- to 17-year-old females (3.4 percent).

Propensity for enlistment in the Army was second highest for all groups. Interest in enlisting in the Coast Guard was lowest of all Services (less than 2.0 percent for all age groups and both sexes) although propensity for the Marine Corps and Navy for males and females older than 17 was only slightly higher than the propensity for the Coast Guard.

Table 3.3 expands this discussion of propensity for a single Service to include interest in two Military Services. As shown, only small percentages of the YATS population specified two Services and, overall, there were few significant differences in propensity for Service pairs across the age and gender groups. Consistent with propensity results for a single Service only, propensity for the Air Force and Army pair was highest for all females and 16- to 17-year-old males. This propensity was not significantly different from the next highest Service pair for 16- to 17-year-old males (3.3 percent for Army-Air Force vs. 2.7 percent for the Navy-Air Force) or females (1.0 for Army-Air Force vs. 0.8 for Army-Navy and Navy-Air Force). Propensity for either the Army or Air Force was virtually indistinguishable from propensity for other Service pairs in the 22- to 24-year-olds of both genders.

Taken together these data indicate that the preferences of the YATS population for a single Service and pairs of Services are closely related, and are generally consistent with overall Service preferences. They also suggest that most individuals with a propensity to enlist are not committed to a specific Service, as single Service propensities (Table 3.2) are only a fraction of overall Service specific propensity (Table 3.1).

B. Demographic Profiles of Propensity Groups

This section discusses the sociodemographic characteristics of those most likely to join the military. It identifies the percentages of males

Table 3.2. Positive Composite Active Propensity for a Single Service by Sex and Age Range

Service	Males			Females		
	18-17 (N=2,769)	18-21 (N=2,717)	22-24 (N=1,130)	18-17 (N=1,538)	18-21 (N=1,733)	22-24 (N=1,096)
Army only	4.6 (.6)	2.8 (.4)	1.7 (.5)	1.8 (.4)	1.4 (.3)	.8 (.2)
Navy only	2.9 (.5)	1.4 (.3)	.8 (.3)	1.4 (.3)	.8 (.2)	.2 (.2)
Marine Corps only	2.8 (.4)	2.1 (.5)	1.3 (.5)	.5 (.2)	.2 (.1)	.3 (.2)
Air Force only	6.8 (.7)	3.8 (.6)	2.3 (.6)	3.4 (.5)	2.1 (.4)	1.1 (.3)
Coast Guard only	1.4 (.4)	1.9 (.4)	.9 (.4)	.7 (.3)	.6 (.2)	.3 (.2)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

Source: Questions 402, 403, 509-513.

and females expressing positive propensity classified by age, race/ethnicity, school status, marital status, and employment status. The tables in the following sections present two-way distributions of propensity for selected attributes generally broken down by three age ranges: those aged 16 to 17, 18 to 21, and 22 to 24. Table A.4 provides one-way frequency distributions for these characteristics for the traditional market groups of young males and females aged 16 to 21 and older males and females aged 22 to 24.

1. Propensity and Age Patterns

Figure 3.1 provides percentages of the population with positive Composite Active Propensity and unaided mentions by age along with population counts for Composite Propensity for males and females. As shown, age was strongly related to propensity for the YATS population. This was especially true for males, where propensity declined from 44.2 percent at age 16 to 16.6 percent at age 21; thereafter, propensity was somewhat more stable (22- and 24-year-olds were similar to 21-year-olds although 23-year-olds were significantly lower).

The sharp declines across age in the percentages of males with positive propensity are also reflected in the population estimates. More than 700,000 16-year-old males expressed propensity to join the military, but only about 90,000 21-year-old males had this same sentiment, nearly an

Table 3.3. Positive Composite Active Propensity for Two Military Services by Sex and Age Range

Service Pair	Males			Females		
	16-17 (N=2,789)	18-21 (N=2,717)	22-24 (N=1,138)	16-17 (N=1,538)	18-21 (N=1,733)	22-24 (N=1,698)
Army - Navy	1.3 (.3)	1.2 (.6)	.3 (.2)	.8 (.3)	.1 (.1)	.2 (.1)
Army - Marine Corps	2.2 (.3)	1.5 (.4)	.8 (.3)	.2 (.1)	.2 (.1)	.1 (.1)
Army - Air Force	3.3 (.5)	1.2 (.2)	.7 (.3)	1.0 (.3)	1.0 (.2)	.4 (.2)
Navy - Marine Corps	.9 (.4)	.7 (.3)	.1 (.1)	.2 (.1)	-- --	-- --
Navy - Air Force	2.7 (.4)	0.7 (.2)	.7 (.4)	.8 (.2)	.4 (.2)	.1 (.1)
Marine Corps - Air Force	1.1 (.3)	0.7 (.4)	.3 (.2)	.7 (.2)	.3 (.1)	-- --
Coast Guard - Army	.8 (.2)	.4 (.1)	.6 (.3)	.2 (.1)	.2 (.1)	-- --
Coast Guard - Navy	.8 (.2)	.9 (.4)	.6 (.3)	.2 (.1)	.2 (.1)	-- --
Coast Guard - Marine Corps	.3 (.2)	.1 (.1)	-- --	-- --	.1 (.1)	-- --
Coast Guard - Air Force	1.2 (.4)	0.5 (.1)	.8 (.3)	.4 (.2)	.3 (.1)	.2 (.2)

Note: Tabled values are the percentage of respondents indicating propensity for two Services with standard errors in parentheses.

-- Low precision; no estimate reported.

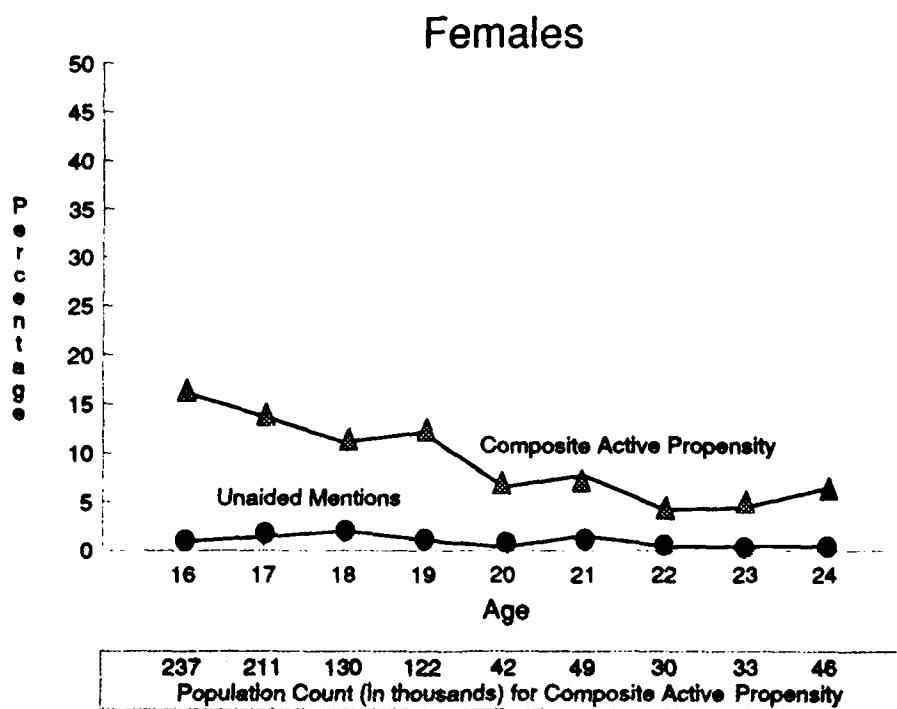
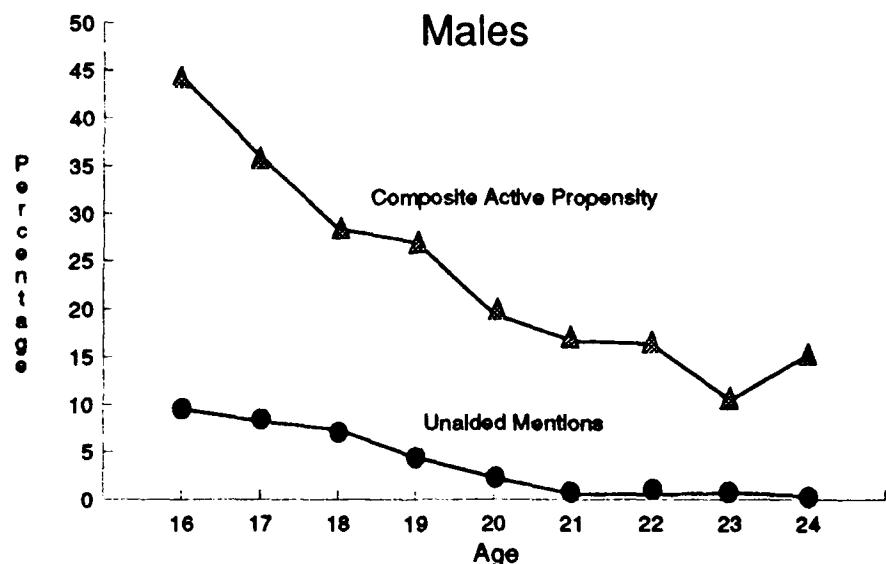
Source: Questions 402, 403, 509-513.

eight-fold decrease. Estimates of population counts were more stable among 22- to 24-year-olds.

Positive propensity for young females shows the same declining pattern as that for young males, although the rate of decline was more gradual, propensity levels were lower, and none of the age categories differed significantly from its adjacent category. Overall, however, 16-year-old females were nearly twice as likely to express positive propensity as their 21-year-old counterparts. The propensity pattern for 22- to 24-year-old females was relatively stable across the three years. Population counts of females with positive propensity followed the pattern across age observed for the percentage estimates. Overall, the counts of females with positive propensity were much lower than the counts of males.

The age effects for propensity shown in these data were particularly strong for males, especially those ages 16 to 21. These patterns and the more stable patterns for those over 21 were seen in prior waves of YATS. As explained earlier, the decline in propensity among older individuals is

Figure 3.1. Positive Composite Active Propensity and Unaided Mentions as a Function of Age for Males and Females



Source: Questions 438, 510-513.

partly a function of the eligibility for YATS: those who have more than two years of postsecondary education and those who enter military service are excluded from the YATS population. Eligibility criteria alone, however, do not account for all of the decline, and the phenomenon is poorly understood.

As might be expected, the percentage of the YATS population who mentioned being interested in military service without prompting (unaided mentions) was considerably lower than the percentages calculated for Composite Active Propensity. For males, younger members of the population expressed higher interest in military service. Sixteen-year-old males had the highest percentage of unaided mentions (9.5 percent). Unaided mentions decreased linearly until age 21, where the percentage reporting interest in the military levels off at almost zero. The pattern of unaided mentions for females was relatively stable and very low, less than 2.0 percent at any age.

2. Propensity by Race/Ethnicity and Age

Table 3.4 provides the population counts and percentages of males and females with positive Composite Active Propensity by race/ethnic category and age grouping. As indicated, race/ethnicity showed a strong relationship to propensity, with minorities more likely than whites to express positive propensity. This pattern occurred across all age groups. Among 16- to 17-year-old males, Blacks (52.9 percent) and Hispanics (54.8) were much more likely to have positive propensity than whites (35.8 percent). A similar pattern occurred among 18- to 21-year-old males (45.3 percent for Blacks and 31.7 percent for Hispanics versus 19.5 percent for whites). The same pattern held with even more extreme differences for 22- to 24-year-old males. Blacks were 3.7 times more likely and Hispanics 2.8 times more likely than whites to show positive propensity.

Females also showed this pattern of higher propensity among minorities than among whites. Among those age 16 to 17, for example, 10.3 percent of whites reported positive propensity compared with 34.5 percent of Blacks and 25.5 percent of Hispanics. The same pattern held for females aged 18 to 21 and those aged 22 to 24.

It is not clear why minorities had a higher propensity for military service. They may think the military offers them good opportunities for

Table 3.4. Positive Composite Active Propensity by Race/Ethnicity, Sex, and Age Range

Sex/Race-Ethnicity	Age Range					
	18-17		18-21		22-24	
	Estimated Population	Count	Estimated Population	Count	Estimated Population	Count
<u>Males</u>						
White	877	36.8	481	19.5	184	9.5
Black	188	52.9	143	45.3	42	35.6
Hispanic	184	54.8	115	31.7	47	26.9
Other	48	46.8	51	42.3	9	21.8
Total	1,289	40.0	790	24.2	282	14.1
<u>Females</u>						
White	234	10.3	177	6.8	31	1.8
Black	126	34.5	93	23.5	26	18.9
Hispanic	70	25.5	44	12.8	44	19.5
Other	15	17.7	29	26.7	9	17.9
Total	445	14.9	343	9.9	118	5.8

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

Source: Questions 402, 403 516-513, 714, 715.

advancement, fair treatment, or the like.

Table 3.4 also shows population counts for these race/ethnic groups across the age groups. It is clear that even though minorities (that is, Blacks and Hispanics) have proportionately more individuals with positive propensity, the much larger white majority still yields higher population counts despite a smaller proportion with positive propensity. For example, among 18- to 21-year old males, 45.3 percent or about 143,000 Blacks expressed positive propensity compared to 19.5 percent or about 481,000 whites. These data indicate that racial and ethnic minorities have the greatest proclivity for military service although they still represent relatively small numbers.

3. Propensity by Marital Status and Age

Table 3.5 presents the marital status of participants with positive Composite Active Propensity. For both males and females aged 18 to 21 and 22 to 24, never having been married was associated with higher

Table 3.5. Positive Composite Active Propensity by Marital Status, Sex, and Age Range

Sex/Marital Status	Age Range						
	16-17		18-21		22-24		
	Estimated Population	Count	Percent	Estimated Population	Count	Percent	
Males							
Never married	1,283	40.1		769	24.9	139	15.0
Currently married	--	--		16	18.5	55	12.6
Others*	--	--		4	15.7	8	17.6
Total	1,291	40.0		789	24.2	202	14.1
Females							
Never married	443	15.0		300	10.9	58	6.9
Currently married	--	--		31	5.1	37	3.8
Others*	--	--		12	10.7	15	6.4
Total	447	14.9		343	9.9	110	5.0

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

*"Other" includes widowed, divorced, and separated.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 510-513, 713C.

levels of propensity than being currently married. This relationship is statistically significant for all but 22- to 24-year-old males, although the pattern appears to hold. Too few 16- to 17-year-olds were married to assess the relationship for this group. Overall, 40.1 percent of the 16- to 17-year-old males (1.28 million) and 24.9 percent of 18- to 21-year-old males (.77 million) who had never married expressed positive propensity. Propensity among females who had never married was considerably lower than that among males (15.0 percent for 16- to 17-year-olds; 10.9 percent for 18- to 21-year-olds), but still higher than among females who were currently married. Females in the "other" category (i.e., those who were widowed, divorced, or separated) expressed positive propensity at levels comparable to females who were never married. The most important finding is that married individuals in the YATS population have lower enlistment propensity than individuals who have never married.

Table 3.6. Positive Composite Active Propensity by School Status, Sex, and Age Range

Sex/School Status	Age Range					
	16-17		18-21		22-24	
	Estimated Population		Estimated Population		Estimated Population	
Count	Percent	Count	Percent	Count	Percent	
Males						
Postsecondary students*	9	15.3	134	13.9	14	9.9
High school graduates	10	32.7	290	23.6	100	11.7
High school seniors	361	33.7	128	54.2	--	--
Younger high school students	663	44.3	28	47.3	--	--
Non-completers	252	43.3	222	28.1	81	21.2
Total	1,295	39.9	800	24.4	202	14.8
Females						
Postsecondary students*	11	19.0	72	6.2	--	--
High school graduates	--	--	145	9.8	58	3.7
High school seniors	121	10.9	28	21.3	--	--
Younger high school students	229	17.4	--	--	--	--
Non-completers	86	17.3	97	13.7	49	9.7
Total	449	14.9	345	9.9	110	5.6

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 482, 483, 484, 486, 487, 488A, 510-513.

4. Propensity by School Status and Age

The presentation in Table 3.6 of the percentage and estimated size of the population with positive propensity partitioned by school status further illustrates the clear relationship of age-related variables such as school status to positive propensity. Overall males in high school reported the highest levels of propensity. For males aged 16 to 17, 33.7 percent of the high school seniors and 44.3 percent of the students in lower grades reported positive propensity. For males aged 18 to 21, 54.2 percent of the seniors and 47.3 percent of younger students reported positive propensity. Propensity was lowest among the males aged 22 to 24, especially postsecondary students (9.9 percent). Non-completers' propensity equaled or exceeded that of high school students for 16- to 17-year-olds but was lower than high school students for 18- to 21-year-olds.

The relationship between propensity, age, and school status for females was generally similar to that observed for males. For 16- to 17-year-olds, postsecondary students (19.0 percent) showed propensity levels similar to that of younger high school students and non-completers (17.4 and 17.3 percent, respectively). For 18- to 21-year-olds, high school seniors showed the highest levels of propensity (21.3 percent). For 22- to 24-year-olds, non-completers showed the highest (although still relatively low) propensity (9.7 percent).

Table 3.6 also presents estimated population counts of those with positive propensity. The largest groups were younger high school students and high school seniors among 16- to 17-year-olds; and high school graduates and non-completers among 18- to 21-year-olds and among 22- to 24-year-olds. These patterns hold for both males and females and reflect shifting life stages as the YATS population ages.

Table 3.6 shows that 18- to 21-year-old high school seniors had higher propensity than 16- to 17-year-old high school seniors. This pattern was not expected. Other tables showed a clear pattern of decreasing propensity with increasing age. One explanation for this finding is that 18- to 21-year-olds who have not yet graduated from high school tend to be students who progress at a slower rate. As a group, these individuals may have below average aptitude. As will be shown in section C, low aptitude individuals had, on average, higher enlistment propensity than high aptitude individuals.

5. Propensity by Employment Status, School Status, and Age

Respondents' employment status is also related to the expression of positive active propensity (Tables 3.7 and 3.8). Males of all ages who were currently not employed and looking for work expressed higher propensity than either those who were not employed but not looking for a job or those who were employed either full time or part time. Among 18- to 21-year-olds, for example, 37.7 percent of those who were not employed expressed positive propensity compared with 23.7 percent of those employed full time and 22.4 percent of those employed part time. This pattern holds overall and within the various school status groups. School group does not show any systematic association with the employment groups.

Table 3.7. Positive Composite Active Propensity by School Status,
Employment Status, and Age for Males

Age/School Status	Employment Status			
	Employed Full-Time	Employed Part-Time	Not Employed, Looking	Not Employed, Not Looking
16-17	(N=206)	(N=1,046)	(N=733)	(N=776)
Postsecondary students*	-- --	-- --	-- --	-- --
High school graduates	-- --	-- --	-- --	-- --
High school seniors	30.2 (7.4)	35.7 (3.3)	38.9 (4.4)	27.7 (3.9)
Younger high school students	54.0 (7.4)	44.7 (3.8)	52.5 (3.5)	34.7 (3.6)
Non-completers	48.5 (6.8)	39.2 (5.6)	46.8 (5.8)	42.6 (7.7)
Total	41.6 (4.2)	39.5 (2.3)	47.3 (2.5)	33.6 (2.5)
18-21	(N=1,388)	(N=534)	(N=367)	(N=322)
Postsecondary students*	25.0 (5.4)	18.9 (1.9)	7.3 (2.7)	9.3 (3.0)
High school graduates	21.1 (2.4)	31.4 (9.5)	40.4 (7.0)	14.5 (6.3)
High school seniors	42.7 (10.8)	49.5 (8.5)	77.7 (7.8)	31.6 (8.3)
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	27.3 (3.8)	28.8 (7.6)	32.0 (7.4)	23.3 (7.9)
Total	23.7 (1.9)	22.4 (2.7)	37.7 (4.7)	15.3 (2.6)
22-24	(N=907)	(N=101)	(N=81)	(N=36)
Postsecondary students*	13.5 (4.8)	-- --	-- --	-- --
High school graduates	11.5 (1.7)	4.2 (3.3)	25.0 (8.7)	-- --
High school seniors	-- --	-- --	-- --	-- --
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	20.7 (3.2)	15.5 (8.3)	34.0 (9.3)	-- --
Total	13.9 (1.4)	7.8 (2.8)	26.5 (5.8)	13.5 (6.2)

Note: Tabled values are percentages with standard errors in parentheses.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 405, 407, 408A, 416, 417, 510-513.

Females show a similar, although weaker pattern. Those who were not employed and looking for work tended to have higher propensity than the other groups. These data suggest that positive propensity for the military will increase as unemployment rates increase. This issue is examined in greater detail in Chapter 5.

Table 3.8. Positive Composite Active Propensity by School Status,
Employment Status, and Age for Females

Age/School Status	Employment Status			
	Employed Full-Time	Employed Part-Time	Not Employed, Looking	Not Employed, Not Looking
<u>16-17</u>	(N=70)	(N=628)	(N=413)	(N=420)
Postsecondary students*	-- --	-- --	-- --	-- --
High school graduates	-- --	-- --	-- --	-- --
High school seniors	19.8 (8.4)	7.8 (1.8)	28.8 (4.0)	6.7 (2.2)
Younger high school students	-- --	17.1 (2.8)	23.4 (3.3)	12.2 (2.4)
Non-completers	34.3 (11.3)	19.3 (4.8)	26.2 (5.1)	8.1 (3.7)
Total	21.7 (5.4)	13.1 (1.8)	21.9 (2.2)	9.8 (1.5)
<u>18-21</u>	(N=835)	(N=488)	(N=278)	(N=330)
Postsecondary students*	7.5 (2.6)	6.4 (1.9)	9.5 (3.3)	-- --
High school graduates	9.9 (1.8)	15.8 (4.1)	7.9 (3.3)	7.2 (2.7)
High school seniors	-- --	-- --	-- --	-- --
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	11.8 (4.6)	12.8 (5.1)	19.9 (8.0)	12.3 (3.8)
Total	9.6 (1.4)	10.5 (1.8)	12.3 (2.4)	7.6 (1.6)
<u>22-24</u>	(N=574)	(N=169)	(N=101)	(N=263)
Postsecondary students*	-- --	-- --	-- --	-- --
High school graduates	4.1 (1.0)	-- --	-- --	-- --
High school seniors	-- --	-- --	-- --	-- --
Younger high school students	-- --	-- --	-- --	-- --
Non-completers	8.1 (2.7)	15.4 (7.4)	17.1 (8.0)	8.1 (3.6)
Total	4.5 (0.9)	4.6 (2.1)	9.0 (3.4)	4.7 (1.6)

Note: Tabled values are percentages with standard errors in parentheses.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 405, 407, 408A, 416, 417, 518-519.

C. Propensity and Youth Aptitude

A key measure of youth aptitude is performance on the Armed Forces Qualification Test (AFQT). There are six categories of scores calibrated in percentiles. Category I is for those scoring 93-99; Category II, 65-92; Category IIIA, 50-64; Category IIIB, 31-49; Category IV, 10-30; and Category V, 1-9. Those scoring in the top half of the enlistment test, Categories I-IIIA, are considered above average in aptitude.

This section examines the relationship between propensity and aptitude. AFQT scores were not available for YATS respondents, but the likelihood that young males and young females fall in the upper and lower half of the AFQT score distribution was estimated using procedures discussed in Chapter 2.

1. Propensity by Predicted AFQT and School Status

Table 3.9 presents positive Composite Active Propensity and positive propensity for the individual Military Services for the predicted AFQT and school status groups of young males aged 16 to 21. Two basic patterns of propensity are evident for both the individual Services and the composite measure. The first pattern is the strong linear relationship between positive propensity and school status. Postsecondary students consistently expressed the lowest levels of propensity; high school graduates and high school seniors the next highest levels, respectively; and younger high school students the highest levels of positive propensity. Non-completers fell between high school seniors and high school graduates.

The second pattern is that positive propensity is clearly and consistently much lower among Category I-IIIA males than among Category IIIB-V males within each school status group. The differences between Category I-IIIA and IIIB-V for Composite Active Propensity range from 10.5 to 19.1 percentage points.

Young females aged 16 to 21 show the same patterns of relationships between active propensity for predicted AFQT and school status groups as young males. The young female data in Table 3.10 show the same strong linear relationship of increasing propensity with decreasing educational status for both the specific Services and Composite Active Propensity and the much lower propensity levels for respondents in Category I-IIIA than respondents in Category IIIB-V. Young females in Category I-IIIA showed Composite Positive Active Propensity levels between 7.5 and 11.1 percentage points lower than those in Category IIIB-V.

The equation-building process for predicting AFQT categories may exaggerate the differences in propensity between those in Category I-IIIA and those in Category IIIB-V, however. Specifically, one of the variables in the equation is a combination of responses on the measure of general

Table 3.9. Positive Active Propensity for Military Service by AFQT and School Status for Young Males

		Predicted AFQT and School Status Group								Total (N=5,486)	
Positive Propensity Measure	Category	Postsecondary Students (N=868)		High School Graduates (N=1,040)		Younger High School Students (N=1,333)		Non-completers (N=1,182)			
		I-IIIA	IIIB-V	I-IIIA	IIIB-V	Category	Category	Category	Category		
Composite Active Propensity ^b	9.6	25.9	18.9	29.4	30.4	49.5	36.9	53.4	24.8	39.7	
Army	3.7	13.2	6.9	14.7	11.4	27.2	12.9	27.3	11.4	23.5	
Navy	3.8	7.8	6.1	11.5	12.6	21.3	14.1	21.1	8.7	13.9	
Marine Corps	2.5	12.4	7.4	14.3	8.0	18.3	10.6	19.9	8.5	18.2	
Air Force	5.7	11.5	10.0	15.8	18.6	24.9	19.8	23.8	12.3	18.9	
Coast Guard	2.4	4.8	6.5	7.6	7.3	13.0	7.5	11.0	6.9	12.5	
										8.1	

Note: Tabled values are percentages of each category with positive propensity.

^aPostsecondary students are high school graduates currently attending college or a business/vocational school.

^bPropensity to serve in at least one active service excluding the Coast Guard.

Source: Questions 402, 404, 408, 407, 408A, 509-513.

Table 3.10. Positive Active Propensity for Military Service by AFQT and School Status for Young Females

Positive Propensity Measure	Predicted AFQT and School Status Group									
	Postsecondary Students (N=819)		High School Graduates (N=764)		High School Seniors (N=636)		Younger High School Students (N=870)		Non-completers (N=592)	
	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V
Composite Active Propensity ^b	4.3	11.8	6.9	13.3	8.6	16.8	12.2	23.2	10.0	18.4
Army	1.6	7.1	2.7	9.2	3.2	8.7	3.9	9.7	3.6	9.6
Navy	1.3	4.4	1.8	4.6	2.8	6.6	4.9	9.9	3.8	8.2
Marine Corps	1.1	1.9	1.3	3.7	1.6	4.7	2.7	5.9	2.5	6.9
Air Force	2.5	6.9	4.1	9.7	5.3	8.2	7.3	14.3	6.7	12.9
Coast Guard	0.6	1.3	1.6	3.1	1.5	3.7	2.4	4.8	3.3	6.2

Note: Tabled values are percentages of each category with positive propensity.

^aPostsecondary students are high school graduates currently attending college or a business/vocational school.

^bPropensity to serve in at least one active service excluding the Coast Guard.

Source: Questions 402, 404, 408, 407, 408A, 509-513.

intention to be serving in the military in the next few years and the "unaided mentions" measure of interest in the military. Both of these measures are moderately correlated with Composite Active Propensity. Still, Orvis and Gahart (1989) found a substantial correspondence between actual AFQT scores and predicted AFQT scores.

2. Population Counts for AFQT Aptitude Groups

Table 3.11 presents estimated population counts along with percentages of young males and females expressing Composite Active Propensity for higher (Category I-IIIA) and lower (Category IIIB-V) aptitude youth. As shown for young males, overall, 32.1 percent or approximately 2.1 million expressed positive propensity. Only 24.3 percent or about 854,000 higher aptitude males expressed positive propensity, however, compared with 41.4 percent or about 1.2 million lower aptitude males. The numbers and percentages of higher aptitude males with positive propensity vary across the school groups. The largest pool of higher aptitude males is among younger high school students (286,000) and high school seniors (253,000). Each of these groups is roughly twice as large as the higher aptitude (Category I-IIIA) groups of high school graduates (127,000) and non-completers (117,000). Higher aptitude postsecondary students comprise the smallest group (72,000).

In addition to knowing the percentage of high aptitude youth expressing positive propensity (Table 3.11), it is of interest to know the percentage of youth expressing positive propensity who have high aptitude. These figures can be computed using Table 3.11 by taking the ratio of the number of higher aptitude youth to the total number of youth. Of all young males aged 16 to 21 with positive propensity, 40.8 percent ($854,000/2,095,000 \times 100$) are higher aptitude youth. The percentages of males with positive propensity who have high aptitudes for each of the school groups are:

- 50.3 for postsecondary students,
- 42.3 for high school graduates,
- 51.8 for high school seniors,
- 41.6 for younger high school students, and
- 24.6 for non-completers.

Table 3.11. Composite Active Propensity by School Status and Predicted AFQT Category for Young Males and Young Females

Sex/School Status	Predicted AFQT Category					
	Category I-IIIA		Category IIIB-V		Total	
	Estimated Population	Count	Percent	Estimated Population	Count	Percent
<u>Young Males</u>						
Postsecondary students ^a	72	9.6		72	25.9	
High school graduates	127	18.9		173	29.4	
High school seniors	263	30.4		236	49.5	
Younger high school students	288	35.9		402	53.4	
Non-completers	117	24.8		358	39.7	
Total	854	24.3		1,241	41.4	
<u>Young Females</u>						
Postsecondary students ^a	34	4.3		49	11.8	
High school graduates	43	5.9		104	13.3	
High school seniors	62	8.5		85	16.8	
Younger high school students	85	12.2		148	23.2	
Non-completers	46	10.0		137	18.4	
Total	271	7.9		523	17.0	

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

^aPostsecondary students are high school graduates currently attending college or a business/vocational school.

Source: Questions 402, 404, 406, 407, 408A, 510-513.

Approximately half of the high school seniors and postsecondary students with positive propensity, then, are predicted to have higher aptitude as assessed by scores on the AFQT. Only about 42 percent of high school graduates and younger high school students and 25 percent of non-completers are predicted to have higher aptitude.

Young females follow the same general pattern observed for young males but at lower levels. Among young females, overall 12.2 percent or 793,000 expressed positive propensity, but only 271,000 have higher aptitude. Younger high school students have the largest number of higher aptitude females with positive propensity (85,000), followed by high school seniors (62,000). High school graduates and non-completers have approximately the same numbers (43,000 and 46,000, respectively) and postsecondary students have the fewest (34,000).

The percentage of young females with positive propensity who are higher aptitude is 34.2 overall. For the school status groups it is:

- 41.0 for postsecondary students,
- 29.2 for high school graduates,
- 42.2 for high school seniors,
- 36.3 for younger high school students, and
- 25.3 for non-completers.

Among females, approximately four in 10 high school seniors and postsecondary students with positive propensity are predicted to be higher aptitude prospects for the military. This is expected to be the case for approximately one-third of high school graduates and younger high school students and about one-fourth of non-completers.

Overall, the percentage of young females with positive propensity who have higher aptitude is lower than that for comparable young males. Thus, fewer females than males expressed positive propensity and of those who do, a smaller percentage have higher aptitude.

These data on predicted AFQT categories provide useful information about the expected aptitude of the YATS population. They show sizable differences between propensity of those in the higher aptitude groups (Category I-IIIA) and those in the lower aptitude groups (Category IIIB-V). Individuals with the greatest propensity for the military, on average, are not those who have the aptitude sought by the military. Overall only about four in 10 young males and one in three young females with Composite Active Propensity are predicted to have higher aptitude. Further, these rates vary by school status groups.

Taken together, these data suggest that Composite Positive Propensity is a useful measure to gauge interest of youth in the military, but it should be combined with predicted AFQT scores to assess the aptitude of potential recruits for military service.

4. PROPENSITY FOR THE NATIONAL GUARD AND RESERVES

This chapter is a companion to Chapter 3 but examines the basic findings of 1988 YATS II data relating to the likelihood of enlistment in the Reserve Components. We first discuss composite and Service-specific propensity results. Next we examine demographic profiles of propensity groups. We then examine propensity for higher and lower aptitude youth.

A. Composite Reserve and Service-Specific Propensity

Table 4.1 presents the percentage of the YATS population expressing positive propensity to serve in any of the Reserve Components as well as in the individual components of the Guard or Reserves. Nearly all measures in Table 4.1 show a significant decline in propensity as individuals increase in age, the same pattern observed in Chapter 3 for active propensity.

Males aged 16-17 expressed significantly higher Composite Reserve Propensity (23.3 percent) than males aged 18-21 (17.6 percent) who, in turn, expressed significantly higher propensity than males aged 22-24 (12.5 percent). All male groups expressed significantly higher levels of propensity than females of comparable age. Females also showed the same decline in propensity with increasing age as males, albeit at lower levels. Females aged 16-17 (9.8 percent) expressed significantly higher levels of propensity than females aged 18-21 (7.6 percent) who, in turn, expressed higher propensity than females aged 22-24 (4.3 percent).

Respondents who expressed positive propensity toward service in the National Guard or Reserves were asked which of the Reserve Components they were thinking about when they answered the question. Overall, relatively few respondents expressed positive propensity for the Guard. Within the Guard, the Army National Guard was mentioned significantly more often than the Air National Guard for all male groups and for 16- to 17-year-old females. The percentages with positive propensity were also low for the Reserves. Within this component the Army and Air Force Reserve were most likely and the Coast Guard least likely to be mentioned as the preferred branch.

Table 4.1. Positive Reserve Propensity by Sex and Age Range

Propensity Measure	Males			Females		
	16-17	18-21	22-24	16-17	18-21	22-24
Composite Reserve Propensity	23.3 (1.2)	17.6 (1.1)	12.5 (1.2)	9.8 (0.8)*	7.6 (0.8)	4.3 (0.7)
<u>National Guards</u>						
Army National Guard	8.3 (0.7)	6.8 (0.7)	4.5 (0.7)	3.5 (0.5)	2.0 (0.4)	1.6 (0.4)
Air National Guard	5.0 (0.6)	3.7 (0.6)	3.1 (0.6)	2.0 (0.4)	2.1 (0.4)	0.9 (0.3)
<u>Reserves*</u>						
Army Reserve	6.6 (0.7)	5.4 (0.7)	3.4 (0.7)	2.2 (0.4)	2.5 (0.6)	1.3 (0.3)
Navy Reserve	2.8 (0.6)	2.0 (0.5)	1.0 (0.4)	1.3 (0.3)	0.7 (0.2)	0.1 (0.1)
Marine Corps Reserve	2.4 (0.4)	2.2 (0.4)	1.0 (0.3)	0.9 (0.3)	0.5 (0.2)	0.6 (0.3)
Air Force Reserve	5.1 (0.6)	2.8 (0.4)	2.8 (0.5)	2.5 (0.4)	2.0 (0.4)	1.2 (0.4)
Coast Guard Reserve	1.3 (0.3)	0.8 (0.2)	1.2 (0.4)	0.4 (0.2)	0.2 (0.1)	0.3 (0.2)
Unaided Mentions	2.7 (0.4)	1.5 (0.3)	1.1 (0.4)	1.3 (0.3)	0.4 (0.1)	0.1 (0.1)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

*A total of 24 respondents with positive propensity for the National Guard and the Reserves were unable to select a Service (i.e., Army or National Guard; Army, Navy, Marine Corps, Air Force, or Coast Guard Reserves).

Source: Questions 402, 403, 438, 441, 505-508.

Table A.5 arrays the data presented in Table 4.1 by the four standard groups of 16- to 21-year-old young males and young females and 22- to 24-year-old older males and females. Table A.6 shows the full distribution of propensity responses for the four age groups for the measures of Composite Reserve Propensity, Guard Propensity, and Reserve Propensity.

Table 4.1 also presents percentages of males and females in the YATS populations who expressed unaided mentions of interest in serving in the National Guard or Reserves. Unaided mentions for service in these reserve components were low for all groups but were highest among 16- to 17-year-old males (2.7 percent) and females (1.3 percent). These two groups showed a small but significantly greater tendency than the other same-sex age groups to express unaided mentions for the reserves. Males and females 18 and older showed very low interest in the military as measured by unaided mentions.

B. Demographic Profiles of Propensity Groups

This section examines males and females who expressed positive propensity for the Reserve Components classified by age, race/ethnicity, marital status, school status, and employment status. The tables in the following sections present two-way distributions of propensity for these selected attributes generally broken down into three age ranges: those aged 16-17, 18-21, and 22-24. Table A.7 provides one-way frequency distributions of these characteristics for the traditional market groups of young males and young females aged 16-21 and older males and females aged 22-24.

1. Propensity and Age Patterns

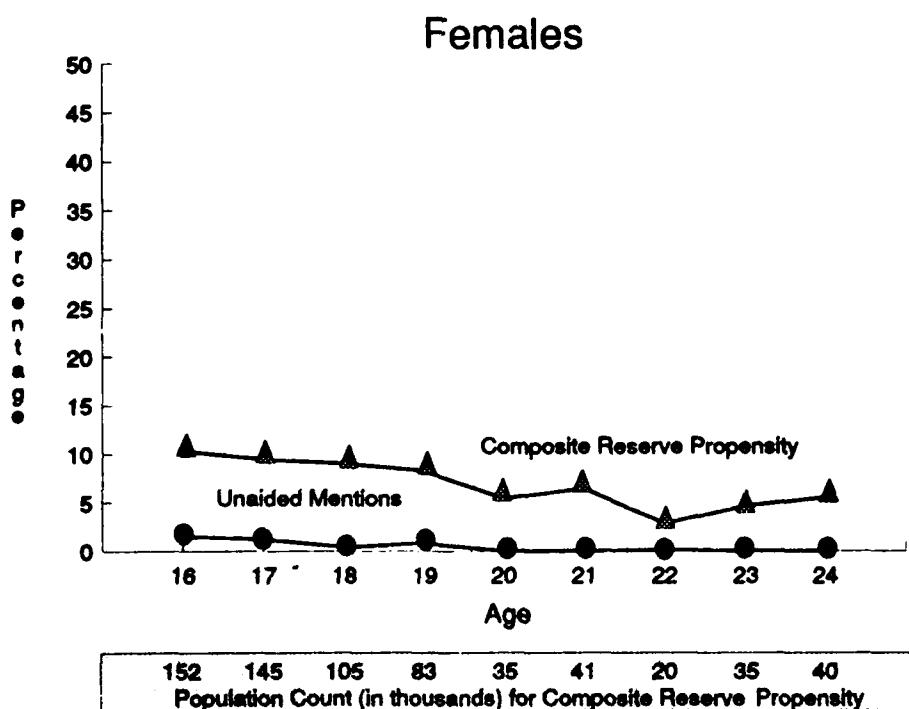
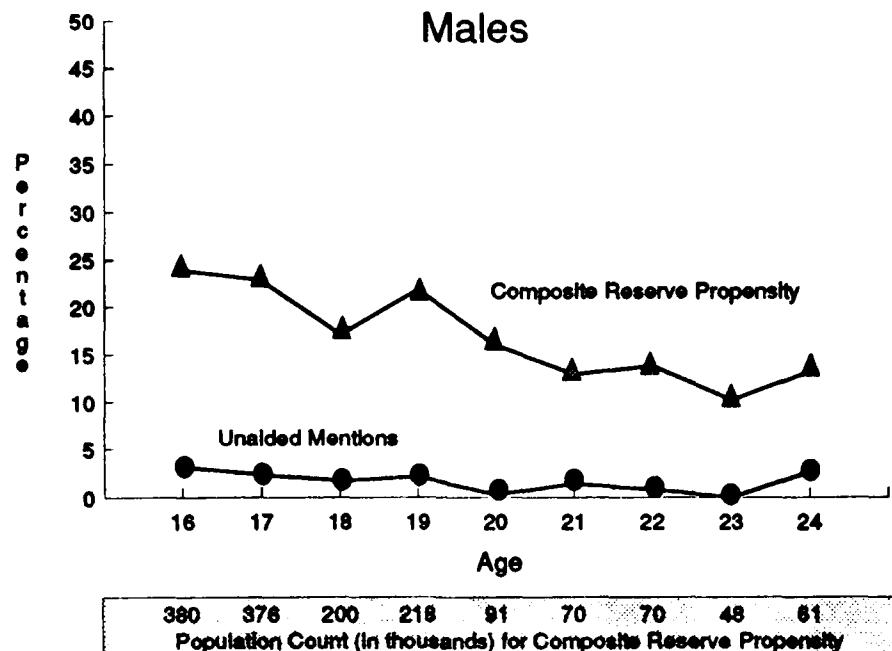
Figure 4.1 presents Composite Reserve Propensity and unaided mentions for service in the National Guard and Reserve Components along with population counts for reserve propensity by age and sex of the YATS population. As shown, age is related to Composite Reserve Propensity for both males and females. For males it is highest among 16- and 17-year-olds (nearly a fourth expressed interest in the National Guard or Reserve Components), shows a general linear decline as the age of the YATS population increases to 21, and then remains relatively stable thereafter. Unaided mentions for the Reserve Components shows the same general pattern as Composite Reserve Propensity although the percentages are very low and the changes across age are correspondingly small.

For females, Composite Reserve Propensity and unaided mentions follow the same pattern observed for males although there is a less marked decline in relation to the age of the population. Those aged 16-17 had the highest propensity and unaided mentions, and those aged 21-24 had the lowest.

Overall age was not as strongly related to reserve propensity as it was to active propensity. In general, although the older members of the population tended to have lower propensity, few of the comparisons between adjacent age categories, at least among the younger members of the population, reach statistical significance.

These data, like those for active propensity, show clear age effects for propensity for both sexes, especially for males, and those from ages 16 to 21 with more stable patterns for those over 21. This similarity is, in

**Figure 4.1. Positive Composite Reserve Propensity and
Unaided Mentions as a Function of Age for Males and Females**



Source: Questions 438, 505, 507.

part, the result of asking the same respondents for information for both active propensity and reserve propensity. Those with a sentiment favorable toward serving in the active military might be expected to show a similar positive sentiment toward serving in the Guard and/or Reserves. Even taking this into account however, the active military is clearly more appealing than the Reserve Components.

2. Propensity by Race/Ethnicity and Age

Table 4.2 presents the estimated population counts and percentages of males and females expressing positive reserve propensity for racial/ethnic groups by age group. As shown race/ethnicity is related to reserve propensity just as it was to active propensity. More specifically, Blacks were generally more than twice as likely to express positive propensity as their white counterparts for all age groups. For males the difference between Blacks and whites was three-fold for 22- to 24-year-olds (27.2 percent versus 9.1 percent) and for 18- to 21-year-olds (37.4 versus 13.3 percent). For males aged 16-17 the difference was nearly two-fold (36.2 percent versus 20.1 percent).

For females the contrast in propensity between Blacks and whites is even stronger than for males. Black females aged 16-17 and those aged 18-21 were over four times as likely to express positive reserve propensity than their white counterparts (27.4 percent versus 6.3 percent and 20.4 percent versus 4.8 percent, respectively). Black females aged 22-24 were six times more likely to do so than comparable white females (13.1 percent versus 2.0 percent).

Both male and female Hispanic respondents also expressed significantly higher propensity than whites. Hispanic 22- to 24-year-olds were about as likely as their Black counterparts to express positive reserve propensity. Among 16- to 17-year-olds and 18- to 21-year-olds, Hispanics were significantly less likely than Blacks to express positive propensity.

It is not clear why greater percentages of minorities have positive propensity for military service and why this difference is so highly pronounced for the Reserve Components. Minorities may perceive the Guard and Reserves as an excellent second job where they receive good pay for

Table 4.2. Positive Composite Reserve Propensity by Race/Ethnicity, Sex, and Age Range

Sex/Race-Ethnic Group	Age Range					
	16-17		18-21		22-24	
	Estimated Population	Count	Percent	Estimated Population	Count	Percent
Males						
White	492	26.1		327	13.3	
Black	129	36.2		118	37.4	
Hispanic	103	30.6		87	24.1	
Other	28	31.3		36	30.3	
Total	751	23.3		569	17.4	
Females						
White	144	6.3		126	4.8	
Black	100	27.4		81	20.4	
Hispanic	46	17.6		37	10.8	
Other	2	2.8		17	15.3	
Total	293	9.8		281	7.5	

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 505, 507, 714, 716.

their services, have opportunities for advancement, and are treated fairly, or they may feel a greater sense of patriotism and duty to country.

Table 4.2 also shows population counts for these race/ethnic groups across the age range. These data indicate that although larger percentages of Blacks and Hispanics express positive propensity, there are still numerically many more whites with positive propensity.

3. Propensity by Marital Status and Age

Table 4.3 provides the population counts and reserve propensity estimates for the YATS population by marital status. The pattern of results follows that observed for active propensity. Higher propensity was expressed by 18- to 21-year-old males (17.8 percent versus 11.6 percent) and females (8.6 percent versus 2.2 percent) who had never married than was expressed by those who were currently married. Females aged 22-24 showed the same pattern as 18- to 21-year-olds, that is, higher propensity among

Table 4.3. Positive Composite Reserve Propensity by Marital Status, Sex, and Age Range

Sex/Marital Status	Age Range					
	16-17		18-21		22-24	
	Estimated Population	Count Percent	Estimated Population	Count Percent	Estimated Population	Count Percent
Males						
Never married	747	23.3	548	17.8	102	11.1
Currently married	--	--	18	11.6	62	13.5
Others*	--	--	--	--	13	28.3
Total	752	23.3	569	17.4	177	12.4
Females						
Never married	291	9.8	238	8.6	55	8.5
Currently married	--	--	13	2.2	25	2.3
Others*	--	--	11	9.6	14	6.2
Total	295	9.8	261	7.5	95	4.3

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

*"Other" includes widowed, divorced, and separated.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 505, 507, 713C.

the never married, but males aged 22-24 showed no difference in propensity between the never married and the married. The data also indicate that females in the "Other" category (i.e. those who are widowed, divorced, or separated) responded more like those who have never married than like those who were currently married. Among 22- to 24-year old males, those in the "Other" category expressed the highest propensity.

Generally speaking, among those aged 18-21 and among females aged 22-24 being married is associated with lower interest in Reserve service.

Married adults aged 18-21 and females aged 22-24 may not think of the Reserves as a viable part-time job or may see the Reserves as detracting from family life.

4. Propensity by School Status and Age

Table 4.4 provides estimates for males and females of population size and Composite Reserve Propensity for the YATS population partitioned

Table 4.4. Positive Composite Reserve Propensity by School Status,
Sex, and Age Range

Sex/School Status	Age Range					
	16-17		18-21		22-24	
	Estimated Population	Count Percent	Estimated Population	Count Percent	Estimated Population	Count Percent
Males						
Postsecondary students*	7	11.7	107	11.1	18	11.9
High school graduates	7	23.5	230	18.7	101	10.9
High school seniors	230	21.5	72	30.5	--	--
Younger high school students	365	24.4	18	33.7	--	--
Non-completers	147	25.2	151	19.1	62	18.4
Total	757	23.3	579	17.6	179	12.5
Females						
Postsecondary students*	10	15.8	64	5.5	--	--
High school graduates	--	--	99	6.7	46	3.1
High school seniors	86	7.7	26	21.6	--	--
Younger high school students	139	10.5	--	--	--	--
Non-completers	62	12.6	71	10.1	41	8.1
Total	298	9.8	285	7.6	95	4.3

Note: Population counts are in thousands. Estimates are based on some variables for which there may be missing information.

*Postsecondary school students are high school graduates currently attending college and business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 406, 407, 408A, 505, 507.

by school status and age group. In general, years of education completed are negatively related to interest in the military as measured by Composite Reserve Propensity. For males aged 16-17, slightly less than one-quarter of the current high school students (21.5 percent of the high school seniors and 24.4 percent of the younger high school students) expressed positive reserve propensity. Overall, this amounts to some 595,000 individuals with enlistment interest. Among males aged 18-21, reserve propensity for high school students was even higher (33.7 percent for younger high school students and 30.5 percent for high school seniors). Those in this age group who had higher educational status, however, had far less interest in the military. For example, 18.7 percent of high school graduates and 11.1 percent of postsecondary students (high school graduates

attending college or vocational/technical school) had positive reserve propensity.

For females, the pattern of reserve propensity for school status and age group was similar to that for males though smaller. Among 17-year-olds, 7.7 percent of the high school seniors had positive reserve propensity. Among 18- to 21-year-olds, the percentages were higher, 21.6 percent.

Table 4.4 shows that 18- to 21-year-old high school seniors had higher positive propensity than 16- to 17-year-olds. Differences were not significant among males for younger high school students. This finding was unexpected because other analyses had shown decreasing propensity with increasing age. One explanation for this finding is that the 18- to 21-year-olds in this group tend to be students who progress more slowly than normal. As will be shown in section C, low aptitude individuals, on average, had higher enlistment propensity than high aptitude individuals.

5. Propensity by Employment Status, School Status, and Age

Table 4.5 explores the relationship of employment, school status, and age to reserve propensity for males. The totals for the age groups show that propensity tended to be highest or not significantly lower for those who were not employed but looking for work. In contrast, reserve propensity was lowest among the not employed who were not looking for work (less than 10 percent for 18- to 21-year-old males). Reserve propensity was highest for males aged 16-17, despite employment and school status.

Table 4.6 provides estimates of reserve propensity for females in YATS by employment, school status, and age. As noted for males, reserve propensity for females among the employment groups tended to be the highest (i.e. it is highest or is not significantly lower) among the not employed looking for work. Consistent with other age-related data, propensity for this employment group was lower for those who were older (14.3 percent for 16- to 17-year-olds, 11.2 percent for 18- to 21-year-olds, 6.7 percent among 22- to 24-year-olds). Propensity was lowest among those who were not employed and not looking. Aside from these patterns there were few other significant differences in the table due to the large variation of the estimates. Thus school groups do not aid interpretation of propensity findings in the unemployment groups.

Table 4.6. Positive Composite Reserve Propensity by School Status,
Employment Status, and Age for Males

Age/School Status	Employment Status			
	Employed Full-Time	Employed Part-Time	Not Employed, Looking	Not Employed, Not Looking
18-17 Year Olds	(N=208)			
Postsecondary students*	--	--	--	--
High school graduates	--	--	--	--
High school seniors	29.6 (10.0)	19.7 (2.8)	29.9 (4.1)	16.7 (3.5)
Younger high school students	32.5 (7.5)	24.8 (3.2)	29.3 (3.2)	18.6 (3.0)
Non-completers	38.8 (8.8)	21.2 (5.2)	32.5 (5.1)	16.6 (5.3)
Total	32.2 (4.5)	22.0 (2.0)	29.9 (2.2)	17.1 (2.1)
18-21 Year Olds	(N=1,388)			
Postsecondary students*	18.9 (4.8)	11.3 (2.0)	9.5 (3.2)	5.0 (1.8)
High school graduates	17.1 (2.1)	28.2 (8.1)	25.6 (6.8)	--
High school seniors	32.6 (10.5)	11.2 (6.2)	36.1 (11.2)	8.9 (3.8)
Younger high school students	--	--	--	--
Non-completers	18.7 (2.4)	25.0 (7.7)	23.1 (6.2)	14.6 (6.9)
Total	17.3 (1.5)	19.2 (2.4)	25.0 (3.6)	7.8 (1.7)
22-24 Year Olds	(N=907)			
Postsecondary students*	15.9 (5.2)	--	--	--
High school graduates	11.8 (1.6)	--	13.6 (6.6)	--
High school seniors	--	--	--	--
Younger high school students	--	--	--	--
Non-completers	15.2 (2.8)	15.3 (6.6)	30.4 (8.9)	--
Total	12.9 (1.3)	6.5 (2.6)	19.4 (4.9)	--

Note: Tabled values are percentages with standard errors in parentheses.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 406, 407, 408A, 418, 417, 505, 507.

C. Propensity and Youth Aptitude

As noted in Chapter 3, youth aptitude is assessed with respect to scores on the Armed Forces Qualification Test (AFQT). Those scoring in the top half of the score scale (50th percentile and higher) comprise Categories I-IIIA and are considered above average in aptitude. Those scoring below the 50th percentile are considered lower aptitude.

This section examines the relationship between reserve propensity and aptitude. AFQT scores were not available for YATS respondents, but the likelihood that young males and young females fall in the upper and lower

Table 4.8. Positive Composite Reserve Propensity by School Status,
Employment Status, and Age for Females

Age/School Status	Employment Status			
	Employed Full-Time	Employed Part-Time	Not Employed, Looking	Not Employed, Not Looking
18-17 Year Olds	(N=70)	(N=628)	(N=413)	(N=420)
Postsecondary students*	--	--	--	--
High school graduates	--	--	--	--
High school seniors	19.7 (8.4)	5.2 (1.4)	13.4 (3.1)	5.6 (2.1)
Younger high school students	--	9.0 (2.1)	13.6 (2.7)	9.3 (2.2)
Non-completers	--	14.3 (4.4)	19.3 (5.7)	--
Total	18.5 (4.8)	8.1 (1.2)	14.3 (1.9)	7.1 (1.4)
18-21 Year Olds	(N=835)	(N=488)	(N=228)	(N=330)
Postsecondary students*	4.4 (2.0)	5.6 (1.6)	10.0 (3.5)	3.1 (1.6)
High school graduates	6.2 (1.3)	7.9 (3.3)	8.6 (3.8)	5.1 (2.3)
High school seniors	--	--	--	--
Younger high school students	--	--	--	--
Non-completers	9.9 (4.3)	14.3 (5.3)	11.4 (4.5)	7.0 (2.6)
Total	6.7 (1.2)	8.5 (1.6)	11.2 (2.3)	5.2 (1.3)
22-24 Year Olds	(N=574)	(N=189)	(N=101)	(N=253)
Postsecondary students*	--	--	--	--
High school graduates	3.9 (1.1)	4.1 (1.9)	--	--
High school seniors	--	--	--	--
Younger high school students	--	--	--	--
Non-completers	--	15.4 (7.4)	20.3 (8.7)	8.3 (3.1)
Total	3.6 (0.9)	7.7 (2.5)	8.7 (2.8)	2.7 (1.2)

Note: Tabled values are percentages with standard errors in parentheses.

*Postsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 406, 407, 408A, 416, 417, 505, 507.

half of the AFQT score distribution was estimated using procedures discussed in Chapter 2.

1. Propensity by Predicted AFQT and School Status

Table 4.7 presents reserve positive propensity levels for the predicted AFQT groups of young males aged 16 to 21 years. Two basic patterns of propensity are evident for Composite Reserve Propensity, propensity for the National Guard and propensity for the Reserves. The first pattern is a strong linear relationship of positive propensity and school status. Postsecondary students consistently expressed the lowest

Table 4.7. Young Males' Reserve Propensity for National Guard/Reserve Service by AFQT and School Status Category

		Predicted AFQT and School Status Group											
		Postsecondary Students (N=888)				High School Seniors (N=1,143)				Younger High School Students (N=1,333)		Non-completers (N=1,103)	
Positive Propensity Measure	Category	Category	Category	Category	Category	Category	Category	Category	Category	Category	Category	Total	
		I-IIIA	IIIB-V	I-IIIA	IIIB-V	I-IIIA	IIIB-V	I-IIIA	IIIB-V	I-IIIA	IIIB-V	(N=5,488)	
Composite Reserve Propensity ^b	8.4	18.4	14.3	24.0	18.0	31.1	18.7	31.1	14.8	26.3	20.5		
National Guard	4.6	8.0	9.9	15.9	10.4	16.9	11.0	18.3	9.1	16.2	12.2		
Reserves	6.7	16.7	10.6	16.9	15.1	24.1	14.1	24.1	11.6	20.3	15.9		

Note: Tabled values are percentages of each category with positive propensity.

^aPostsecondary students are high school graduates currently attending college or a business/vocational school.

^bPropensity to serve in either the Guard or the Reserves.

Source: Questions 402, 404, 406, 407, 408A, 505-508.

levels of propensity; high school graduates and non-completers the next highest levels; and high school seniors and younger high school students the highest levels of positive propensity except in the Reserves (where they have slightly lower propensity than high school seniors).

The second pattern is the clearly and consistently much lower positive propensity of Category I-IIIA males than Category IIIB-V males within each school status group. There is a 10 to 12 percentage point difference between Category I-IIIA and IIIB-V for Composite Reserve Propensity.

Table 4.8 shows that the patterns for reserve positive propensity for predicted AFQT and school status groups for females aged 16 to 21 were the same as noted for young males. Again, with the exception of a slightly lower propensity to join the Reserves among the younger high school students, there was a strong linear relationship of decreasing propensity with increasing educational status. In addition, respondents in Category I-IIIA expressed much lower propensity levels than respondents in Category IIIB-V. Composite Reserve Propensity levels for young females in Category I-IIIA ranged between 3 and 7 percentage points. These data parallel findings observed for active propensity and indicate that interest in the Reserve Components was clearly lower among individuals of higher aptitude (Category I-IIIA) than among those of lower aptitude (Category IIIB-V).

2. Population Counts for AFQT Groups

Table 4.9 presents estimated population counts along with percentages of young males and females expressing Composite Reserve Propensity for higher and lower aptitude youth. Overall, 20.5 percent or approximately 1.3 million young males expressed positive propensity. Only 15.1 percent or about 532,000 higher aptitude males however, expressed positive propensity compared with 26.8 percent or about 803,000 lower aptitude males. The numbers and percentages of higher aptitude males with positive propensity varied across the school groups. The largest pool of higher aptitude males was among high school seniors (154,000) and younger high school students (149,000). Each of these groups was roughly one and a half times larger than the higher aptitude (Category I-IIIA) group of high school graduates (96,000) and over twice as large as higher aptitude non-completers (70,000) and postsecondary students (63,000).

Table 4.8. Young Female Reserve Propensity for National Guard/Reserve Service by AFQT and School Status Category

		Predicted AFQT and School Status Group									
Positive Propensity Measure	Category I-IIIA	Postsecondary Students (N=619)		High School Graduates (N=764)		High School Seniors (N=638)		Younger High School Students (N=676)		Non-Completers (N=592)	
		Category IIIB-V	Category I-IIIA	Category IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V
Composite Reserve Propensity ^b	4.2	9.6	3.4	9.6	6.7	14.0	7.0	14.8	6.9	13.7	8.6
National Guard	1.6	3.7	1.6	5.6	1.9	8.9	4.1	9.3	4.6	8.2	4.8
Reserves	3.2	8.0	2.9	8.8	5.2	11.1	4.6	9.8	4.5	10.2	6.7

Note: Tabled values are percentages of each category with positive propensity.

aPostsecondary students are high school graduates currently attending college or a business/vocational school.
bPropensity to serve in either the Guard or the Reserves.

Source: Questions 402, 404, 406, 407, 408A, 505-508.

Table 4.9. Composite Reserve Propensity by School Status and Predicted AFQT Category for Young Males and Young Females

Sex/School Status	Predicted AFQT Category				Total	
	Category I-IIIA		Category IIIB-V			
	Estimated Population	Count	Percent	Estimated Population	Count	Percent
<u>Young Males</u>						
Postsecondary students*	63	8.4		51	18.4	114
High school graduates	98	14.3		141	24.0	238
High school seniors	154	18.6		148	31.1	302
Younger high school students	149	18.7		234	31.1	383
Non-completers	70	14.8		229	25.3	298
Total	532	15.1		803	28.8	1,335
<u>Young Females</u>						
Postsecondary students*	33	4.2		40	9.5	73
High school graduates	25	3.4		74	9.8	99
High school seniors	42	5.7		71	14.0	112
Younger high school students	49	7.0		94	14.8	143
Non-completers	32	6.9		102	13.7	133
Total	180	5.3		381	12.4	562

Note: Population counts are in thousands.

*Postsecondary school students are high school graduates currently attending college or a business/vocational school.

Source: Questions 482, 484, 486, 487, 488A, 506, 507.

Overall, 532,000 (39.9 percent) of the 1,335,000 16- to 21-year-old males with positive propensity are estimated to have higher aptitude. The percentages of males with positive propensity who have high aptitude for each of the school groups are:

- 55.3 for postsecondary students,
- 40.3 for high school graduates,
- 51.0 for high school seniors,
- 38.9 for younger high school students, and
- 23.5 for non-completers.

These data indicate that slightly over half of the high school seniors and postsecondary students with positive propensity are predicted to achieve

AFQT scores in Categories I-IIIA. This drops to about 40 percent for high school graduates and younger high school students. About one-fourth of non-completers with positive propensity have high aptitude.

Young females followed the same general pattern observed for young males but at lower levels. Overall 8.6 percent or 562,000 young females expressed positive propensity. Of these, about 180,000 were higher aptitude. Younger high school students had the largest number of higher aptitude females with positive propensity (49,000), followed by high school seniors (42,000). Postsecondary students and non-completers have approximately the same numbers (33,000 and 32,000, respectively), and high school graduates have the fewest (25,000).

The percentage of young females with positive propensity who have higher aptitude is 32.0 overall. For the school status groups it is:

- 45.2 for postsecondary students,
- 25.3 for high school graduates,
- 37.5 for high school seniors,
- 34.3 for younger high school students, and
- 24.1 for non-completers.

Among females, nearly four in nine postsecondary students with positive propensity are predicted to be higher aptitude prospects for the military. This is expected to be the case for slightly more than one-third of high school seniors and younger high school students and about one-fourth of high school graduates and non-completers.

Overall, the percentage of young females with positive reserve propensity who have higher aptitude is lower than that for comparable young males. Thus, there are both fewer females with positive propensity than males and a smaller percentage who have higher aptitude.

These data on predicted AFQT categories provide useful information about expected aptitude of the YATS population. They show sizeable differences between positive propensity for the Reserve Components of those in the higher aptitude groups (Category I-IIIA) and those in the lower aptitude groups (Category IIIB-V). Individuals with positive propensity for the Guard and Reserves, on average, are not those who have the aptitude sought by the Reserve forces. Overall only about four in 10 young males

and one in three young females with positive composite reserve propensity are predicted to have higher aptitude. Further, these rates vary by school status group.

Taken together, these data reinforce the findings observed in Chapter 3 for active propensity. They also suggest that Composite Reserve Propensity, although a useful gauge of youth's interest in the Guard and Reserves, should be combined with predicted AFQT scores to determine how many of those who are interested meet military standards.

5. TRENDS IN ENLISTMENT PROPENSITY FOR ACTIVE DUTY MILITARY

Attitudes towards the military and interest in military service vary in relation to such factors as age, aptitude, educational status, and level of employment (Davis & Sheatsley, 1985; Hosek, Peterson, & Eden, 1986; Orvis & Gahart, 1989). A careful examination of these issues will be important to the military as attitudes towards service continue their transition from the Vietnam and Reagan eras to the present. Indeed, such examination of interest in the military may be especially important at this time, for as senior DoD officials have noted, the Services have attracted proportionally fewer high quality recruits in the last two years (see e.g., Burlage, 1988) as competition from the civilian sector for the shrinking pool of 17- to 21-year-old males and females increases during a relatively promising economic climate.

A particular strength of the YATS survey is its ability to identify, at an early stage, changing youth interest in and attitudes toward the military and also importantly, to track them over time. With such information in hand, the military is in a better position to adapt programs and policies to appeal to future recruits during changing economic and social conditions.

This chapter examines the trends in young people's propensity to join the active military. We first consider trends in propensity for active duty service and then discuss the relationship of propensity to unemployment rates.

A. Positive Active Propensity

To track trends on survey items over time, research methodology and questionnaire items must be comparable for the data to be interpreted correctly. Throughout the YATS surveys key items such as propensity have remained constant, although there have been differences in the sampling methods, sampling strata, and weighting schemes. The effects of these changes on estimates made from data obtained before 1983 were analyzed, and the propensity data for the earlier years were adjusted for differences in sampling and weighting. This section of the report describes the reweighted estimates for positive propensity to join each Service and Composite Active Propensity across the series of YATS surveys.

1. Young Male Propensity Trends

Inspection of Figure 5.1, which presents propensity data for young males from 1976 to 1988, suggests that propensity has changed from year to year. However, many of the year-to-year fluctuations are not statistically significant. The decrease in composite propensity from 1977 to 1978, for example, is not larger than might be expected by chance alone.

Overall, statistical analysis showed that composite propensity varied significantly over the 1976 to 1988 time period. Further analysis indicated that composite propensity was significantly greater during the 1980-1983 time period than during the previous four-year period (1976-1979) or the subsequent five-year period (1984-1988) ($p<0.001$).

Trends in Service-specific propensity for the Army, Navy, and Air Force were consistent with trends in composite propensity. That is, propensity for these Services was greater for the 1980-1983 period than for the 1976-1979 or 1984-1988 periods. Propensity for enlistment in the Navy, however, has declined steadily. Propensity for Naval enlistment was lower for the last five-year period than for the 1980-1983 period, and propensity in the 1980-1983 period was lower than for the 1976-1979 period.

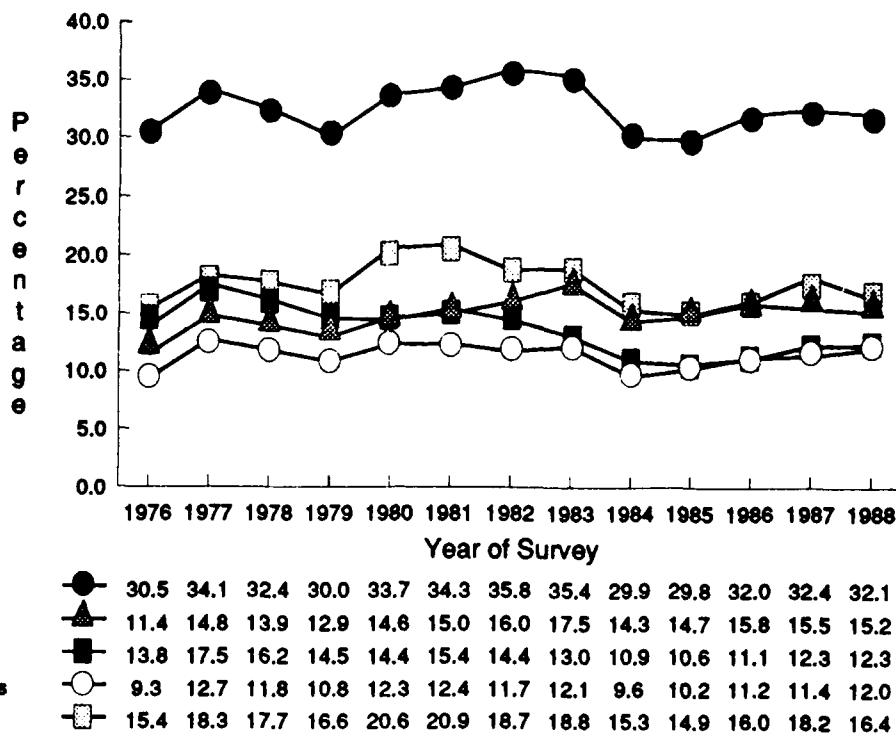
A shift in Service preference patterns is also evident in Figure 5.1. Since 1976, propensity for the Services shows a shift from four distinct preferences to two distinct preferences. During the 1970s, preferences for all Services were clearly differentiated. From 1980 to 1988, preferences for the Air Force and the Army converged as did those for the Navy and the Marine Corps.

2. Young Female Propensity Trends

Figure 5.2 presents trend data for young females that are comparable to the data in Figure 5.1 for young males. Females were first included in the YATS series in 1980, so data are available for only nine years. Comparison of Figures 5.1 and 5.2 shows that young females' positive propensities for each active Service and Composite Active Propensity are all lower than parallel propensities for young males.

Differences between the yearly propensity estimates of young females were less obvious than those seen for young males. However, statistical analysis of Composite Active Propensity for any Military Service indicated significant differences. Differences in yearly propensity estimates for the individual

**Figure 5.1. Trends In Positive Propensity to Serve on Active Duty
In Specific Services and Any Service for Young Males**



Note: Estimates prior to 1983 have been reweighted to be comparable to those from 1983 through 1988.

Source: Questions 510-513.

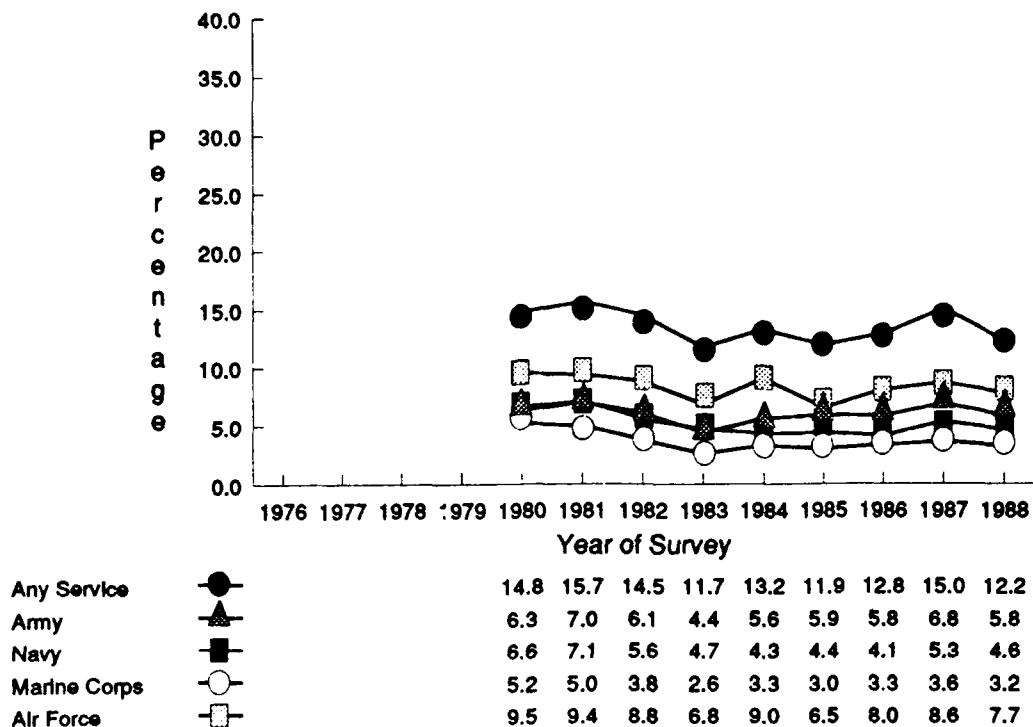
Services were generally not statistically significant. As with composite propensity among young males, composite propensity among young females was slightly but significantly greater during the 1980-1983 period (14.2 percent) than during the 1984-1988 period (13.0 percent).

Individual Service preference patterns showed little change over the years. The Air Force has consistently been the most preferred Service and the Marine Corps the least preferred. From 1980 to 1983 the Army and Navy were nearly identical in their preference (and between the Air Force and Marine Corps). Since 1984 the Army has been the second most preferred Service and the Navy the third.

3. Propensity Trends of the Older Groups

Figure 5.3 presents the six years of available trend data from 1983-1988 for the older males. Because the definition of the older male sample was changed in 1986 to include only 22- to 24-year-olds (rather than 22- to

**Figure 5.2. Trends in Positive Propensity to Serve on Active Duty
in Specific Services and Any Service for Young Females**



Note: Data for young females are available since 1980. Estimates prior to 1983 have been reweighted to be comparable to those from 1983 through 1988.

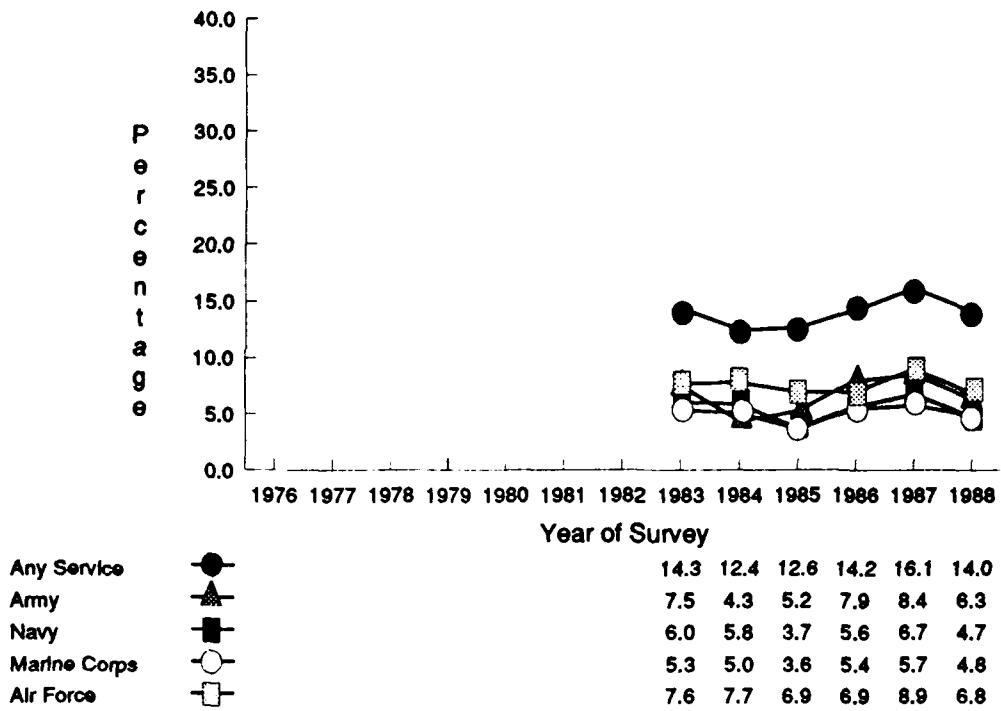
Source: Questions 510-513.

29-year-olds), the data presented for 1983 through 1985 were calculated for the corresponding 22- to 24-year-old subset of respondents.

Statistical examinations of yearly differences in propensity for older males showed no statistically significant changes between 1983 and 1988. The apparent differences shown in Figure 5.3 may only be attributed to random variation.

Only three years of data were available for the older females because 1986 was the first year that they were included in the YATS series. Composite Active Propensity remained low and relatively constant at about 5.0 percent across the three years. There were no statistically significant changes between 1986 and 1988 in composite or Service-specific propensity among older females.

**Figure 5.3. Trends in Positive Propensity to Serve on Active Duty
In Specific Services and Any Service for Older Males**



Note: Data are for older males between the ages of 22-24 and are available since 1983. Estimates for 1983 through 1985 obtained for males aged 22-29 have been reanalyzed for the restricted age group to be comparable to the 1986-1988 data.

Source: Questions 510-513.

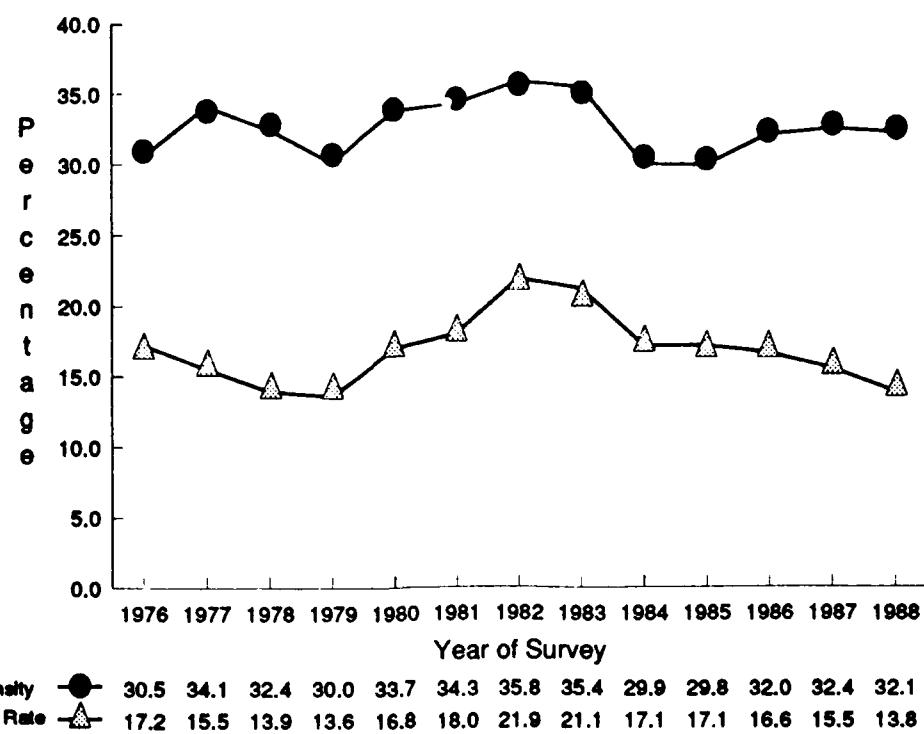
B. Propensity and Unemployment Rates

In the context of social, political and cultural considerations, the military may appear more attractive when a weak economy limits civilian career options. If this presumption is correct, then propensity will be low or declining when the economy is strong or strengthening (when unemployment rates are low or falling), and propensity will be high or rising when the economy is weak or weakening (unemployment rates are high or rising). To examine this assumption the estimates of positive propensity were compared with the annual unemployment rates for young males and young females aged 16- 21 years. Unemployment rates are from the U.S. Bureau of Labor Statistics for the calendar year of the corresponding YATS survey.

1. Young Males' Composite Propensity and Unemployment

Figure 5.4 presents trend data for unemployment and Composite Active Propensity. As shown there is a positive relationship between the unemployment rate for young males aged 16 to 21 and their level of positive

Figure 5.4. Young Males' Annual Unemployment Rate and Positive Propensity for Any Active Duty Service, 1976-1988



Note: Propensity estimates are based on surveys in the fall of each year. Estimates before 1983 were reweighted to make them comparable to those from 1983 through 1988. Unemployment figures are annual estimates provided by the Bureau of Labor Statistics for 16-21 year old males. Correlation of the two curves is .58.

Source: Questions 510-513.

propensity to enlist in the military. Years of low or declining unemployment rates generally correspond with low or declining positive propensity, and years of high or increasing unemployment rates correspond with high or increasing positive propensity. The correlation between the two rates is .58.

The pattern of changes in the respective rates has been close until recently. Since 1976, the unemployment rate for young males increased in three years (1980, 1981 and 1982) and decreased in nine years (1977 through 1979, and 1983 through 1988). Positive propensity for young males increased in each of the three years in which their unemployment rates rose; however, positive propensity also rose in three of the nine years in which unemployment rates fell. These results suggest that, although there is a positive relationship between employment rates and positive propensity, other factors also shape propensity toward the military.

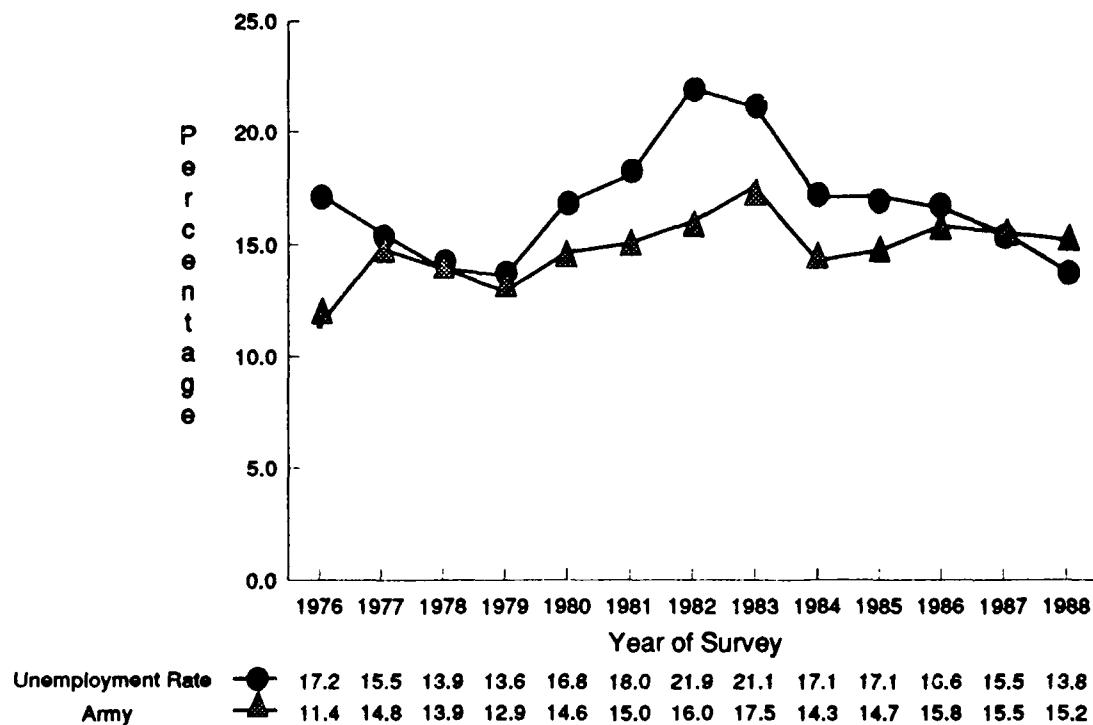
2. Young Males' Service Propensity and Unemployment

To better understand the relationship between unemployment and Composite Active Propensity, Service-level analyses were conducted. Correlations were computed between the unemployment rate for young males and positive propensity for the Army, Navy, Marine Corps, and Air Force. The goal of these analyses was to determine whether there was a pattern between Service propensity and unemployment rates. Results showed a positive and moderate correlation between young males' unemployment rates and propensity for the Army ($r=.50$) but much lower correlations of unemployment rates and propensity for the Navy ($r=.11$), Marine Corps ($r=.04$), and Air Force ($r=.29$). The magnitude of the correlation for the Army was marginally significant ($p<.10$) and approximately the same as that observed above for unemployment rate and composite propensity ($r=.58$), whereas correlations for the other Services were nonsignificant. Figure 5.5 presents the trend data for unemployment rates and positive propensity for the Army.

A second correlation analysis was also conducted omitting data from 1976, a year which may be an outlier for the relationship. This second analyses showed a strong and significant correlation for unemployment rates and the Army ($r=.73$) but not for the other Services. When 1976 data were omitted, this relationship for the Army was comparable to that observed for a reanalysis between unemployment and composite propensity ($r=.62$).

Taken together, these data suggest that the relationship between unemployment and Composite Active Propensity is explained primarily by propensity for the Army. That is, since composite propensity is computed from the individual Service propensities, and the Army shows a significant relationship to unemployment rates but the other Services do not, it follows that the Army propensity explains most of the composite propensity. This finding may partly result from the fact that the Army has shorter enlistment periods than the other Services. If military service during periods of higher unemployment is viewed as a temporary (but not long-term) employment solution, then shorter enlistment periods would have greater appeal. These data, of course, do not address this issue directly but do suggest that there is something distinctive about propensity for the Army and unemployment rates.

Figure 5.5. Young Males' Annual Unemployment Rate and Positive Propensity for the Army, 1976-1988



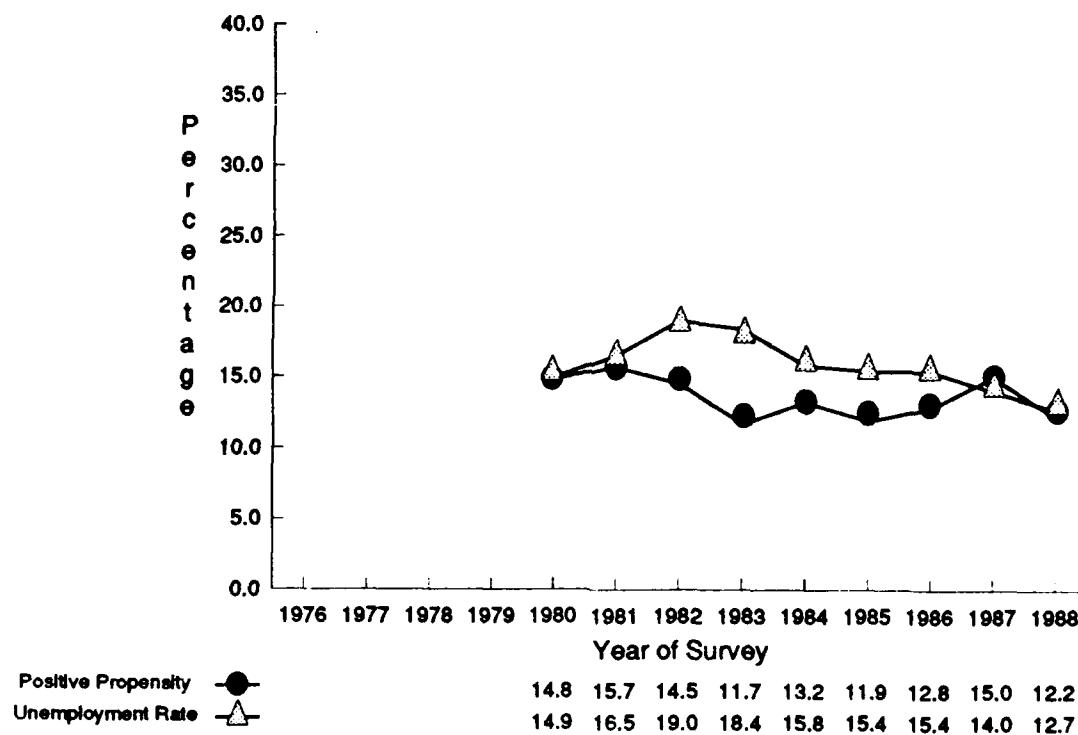
Note: Propensity estimates are based on surveys in the fall of each year. Estimates before 1983 were reweighted to make them comparable to those from 1983 through 1988. Unemployment figures are annual estimates provided by the Bureau of Labor Statistics for 16-21 year old males. Correlation of the unemployment rate and positive propensity for the Army is 0.50.

Source: Questions 510-513.

3. Young Females' Composite Active Propensity and Unemployment

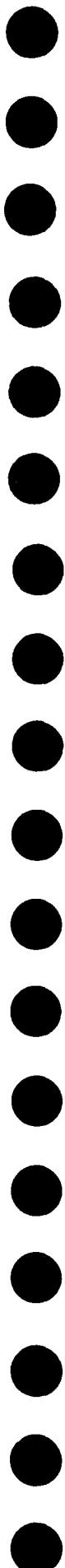
Figure 5.6 compares annual unemployment rates and positive propensity for young females over the nine-year period from 1980 through 1988. The data show no particular relationship as reflected in the low correlation between the two rates ($r=.05$). This indicates that unemployment for young females is not associated with propensity to join the military. Young women may not see the military as a logical alternative to civilian employment.

Figure 5.6. Young Females' Annual Unemployment Rate and Positive Propensity for Any Active Duty Service, 1976-1988



Note: Propensity estimates are based on surveys in the fall of each year. Estimates before 1983 were reweighted to make them comparable to those from 1983 through 1988. Unemployment figures are annual estimates provided by the Bureau of Labor Statistics for 16-21 year old females. Correlation of the two curves is 0.05.

Source: Questions 510-513.



6. SUMMARY AND DISCUSSION

Maintaining the required manpower strength for the military remains a constant challenge to the Services, especially in times of declining pools of potential recruits and continuing competition from the civilian sector. Effective recruiting for the military requires timely information regarding the characteristics and attitudes of young people, as well as their intentions to serve in the military.

This chapter highlights the key propensity findings of the 1988 Youth Attitude Tracking Study (YATS) II. We first summarize the methodology and YATS population characteristics and then highlight the results and implications of active and reserve component enlistment propensity and trends in enlistment propensity.

A. Methodology and Population Characteristics

1. YATS Methodology

The 1988 YATS II survey was designed to obtain information from four market groups of interest to the military: Young males and females aged 16-21 years and older males and females aged 22 to 24 years. Data for the study were collected between July and November 1988, and consist of responses to a Computer Assisted Telephone Interview (CATI). A total of 107,786 households were called to find 13,403 youth and young adults who met eligibility requirements for the study. Analyses were based on 10,985 interviews that included 5,486 young males, 1,130 older males, 3,271 young females, and 1,098 older females. Response rates were over 70 percent for all groups except older males, which was 64 percent.

YATS assesses the self-reported likelihood that young people will serve in the active Military Services or in the Reserve Components in the next few years. This likelihood is referred to as "propensity" and is measured by five questions about serving in the Army, Navy, Marine Corps, Air Force, or Coast Guard. For the Reserve Components, two questions assessing the likelihood of serving in the National Guard or Reserves were asked, with subsequent questions specifying the appropriate branch. Additional propensity measures included Composite Active Propensity which combines the responses to the individual propensity questions of the active Army, Navy,

Marine Corps, and Air Force; Composite Reserve Propensity which combines responses to the propensity questions for the National Guard and the Reserves; and "unaided mentions," an unprompted response about serving in the active military or Reserve Components.

2. Population Characteristics

The YATS population was estimated to consist of approximately 6.5 million young males and 6.5 million young females between the ages of 16 and 21. Approximately half of these young males and females were aged 16 or 17. The numbers in the YATS population decreased as age increased from 18 to 21 years. For older males and females (ages 22-24), the estimated population counts were 1.4 million and 2.2 million, respectively.

The YATS population is part of the larger youth and young adult population that also includes the non-YATS college population, the military population, and an "other" population (those living in Alaska and Hawaii who were not sampled, military veterans, those beyond the second year of college, and those without telephones). The size of the total youth/young adult population aged 16 to 24 was estimated to consist of 17.4 million males and 16.6 million females. This population was relatively constant for each age from 16 to 24, ranging from 1.8 million to 2.1 million for males and from 1.7 million to 2.0 million for females.

The YATS population comprises the majority of the youth population for 16- and 17-year-olds (approximately 85 percent for both males and females), but becomes proportionately smaller for ages 18 to 20 and remains at low levels for ages 21 to 24 (about 25 percent for males and 37 percent for females).

Age was related to many sociodemographic characteristics of the YATS population (e.g., marital, school, and employment status). Very few of the younger individuals had ever married; but by age 22, approximately two-thirds of the females and one-third of the males had married. For employment and school status, younger individuals were more likely to be full-time students and to hold part-time employment or no jobs. Older individuals were more likely to be employed and to hold full-time positions, and consequently, less likely to be in school.

B. Active and Reserve Components Enlistment Propensity

1. Overall Active Duty Propensity Findings

Expressed propensity to enlist for active duty was examined for three age groups: youth and young adults aged 16 to 17, 18 to 21, and 22 to 24. Results showed a clear pattern for propensity to decline significantly as age increased. For males, Composite Active Propensity was (i.e., expressed propensity to enlist in at least one of the DoD Services):

- 39.9 percent for 16- to 17-year olds
- 24.4 percent for 18- to 21-year olds, and
- 14.0 percent for 22- to 24-year olds.

Females showed the same pattern of results as males. However, positive Composite Active Propensity in each female age group was lower than the percentage for the comparable male group:

- 14.9 percent for 16- to 17-year-olds
- 9.9 percent for 18- to 21-year-olds, and
- 5.0 percent for 22- to 24-year-olds.

In general, propensity for individual Services was highest for the Air Force and Army. The 16- to 17-year-old males, for example, expressed significantly higher propensity for the Air Force (21.3 percent) or the Army (18.4 percent) than for the Navy (15.1 percent), Marine Corps (14.0 percent) or Coast Guard (8.9 percent).

Propensity for the individual active Services showed the same general age pattern observed for Composite Active Propensity: Males aged 16-17 expressed the highest levels of positive propensity for the Services (between 8.9 and 21.3 percent), followed by those aged 18-21 (between 7.3 and 12.0 percent), and those aged 22-24 (4.8 to 6.8 percent). Similarly, females aged 16-17 (3.2 to 8.9 percent) also expressed the highest levels of positive propensity followed by those aged 18-21 (2.5 to 6.8 percent), and those aged 22-24 (1.5 to 3.4 percent).

Markedly fewer respondents volunteered the likelihood of their military enlistment (i.e., "unaided mentions") than responded positively when the interviewer questioned them directly about military enlistment. Very young males showed the highest percentage of unaided mentions of positive propensity to join any Military Service (8.8 percent). This was followed by the 18- to 21-year-old males (4.5 percent), 18- to 21-year-old females (1.3 percent) and 16- to 17-year-old females (1.2 percent). Older males and females had the lowest interest in military service as expressed by unaided mentions (0.5 percent each).

2. Overall Reserve Component Propensity Findings

Propensity to serve in the Reserve Components showed a similar, though lower, overall pattern than propensity to serve in the active military. Again a decrease occurred with an increase in age. For males, Composite Reserve Propensity was:

- 23.3 percent for 16- to 17-year-olds
- 17.6 percent for 18- to 21-year-olds, and
- 12.5 percent for 22- to 24-year-olds.

For females, Composite Reserve Propensity was:

- 9.8 percent for 16- to 17-year-olds
- 7.6 percent for 18- to 21-year-olds, and
- 4.3 percent for 22- to 24-year-olds.

Interest in military service as indicated by "unaided mentions" of serving in the National Guard or Reserves followed a pattern similar to that for Composite Reserve Propensity, with higher levels being expressed by younger individuals of both sexes. Overall, however, unaided mentions of serving in the Reserve Components were very low. Males aged 16-17 expressed the highest percentage of unaided mentions of propensity to join the Reserve Components (2.7 percent) followed by males aged 18-21 (1.5 percent) and males aged 22-24 (1.1 percent). Females followed the same

age-related pattern as males. Those aged 16-17 expressed the highest (but very low) unaided mentions (1.3 percent) followed by females aged 18 or older (.4 percent or less).

Respondent age was also associated with propensity for service in the individual Guard or Reserve Components. The young expressed higher propensity than those who were older. For the Guard, propensity levels were higher for the Army National Guard than for the Air National Guard. For example among 16- to 17-year-old males, 8.3 percent expressed positive propensity for the Army National Guard compared with 5.0 percent for the Air National Guard. For the Reserves, enlistment propensity was highest for the Army and Air Force Reserves and lowest for the Coast Guard Reserves. For example, among 16- to 17-year-old males 6.6 percent and 5.1 percent expressed positive propensity for the Army Reserve and Air Force Reserve, respectively, compared to 1.3 percent for the Coast Guard Reserve. These patterns held for all age groups for both males and females.

3. Demographic Profiles

In the 1988 YATS, the sociodemographic factors considered included race/ethnicity, school status, marital status, and employment status. Age was cross-tabulated with these other sociodemographic characteristics because of its strong association with propensity.

Race/ethnicity showed a strong relationship to propensity, with minorities more likely than whites to express positive propensity. This pattern occurred across all age groups and for both males and females. Among 16- to 17-year-old males, for example, Blacks (52.9 percent) and Hispanics (54.8 percent) were much more likely to have positive propensity than were whites (35.8 percent). Among 16- to 17-year-old females, 10.3 percent of whites reported positive propensity compared with 34.5 percent of Blacks and 25.5 percent of Hispanics. While Blacks and Hispanics had proportionately more individuals with positive propensity, the much larger white majority still yielded higher population counts. For example, among males aged 16 to 17, the YATS population with positive propensity was estimated to be 188,000 Blacks, 184,000 Hispanics, and 877,000 whites.

Generally, individuals who had never been married were more likely to express positive propensity than those who were currently married. For example, among males aged 18 to 21, 24.9 percent of those who had never married expressed positive propensity compared with 10.5 percent of those currently married.

School status was also related to positive propensity. Overall, males in high school reported the highest levels of propensity followed by high school graduates (who are not students), and postsecondary students. For example among males aged 16-17, positive propensity was expressed by 44.3 percent of younger high school students (who are not seniors), 33.7 percent of high school seniors, 32.7 percent of high school graduates, and 15.3 percent of postsecondary students. The relationship between propensity, age, and school status for females was similar to that observed for males.

Respondents' employment status was also related to the expression of positive active propensity. Males of all ages who were currently unemployed but looking for work expressed higher propensity than either those who were unemployed but not looking for a job or those who were employed either full time or part time. Among 18- to 21-year-olds, for example, 37.7 percent of those who were unemployed and looking for work expressed positive propensity compared with 23.7 percent of those employed full time and 22.4 percent of those employed part time. Females showed a similar, although weaker pattern.

Findings for the association of sociodemographic characteristics and Reserve Composite Propensity follow the patterns discussed for active propensity. In general, however, propensity levels for service in the Reserve Components were lower than propensity for the active military. This held for age, race/ethnicity, marital status, school status and employment status.

In summary, patterns of results for youth expressing positive Composite Active Propensity and Composite Reserve Propensity were similar for sociodemographic characteristics, but propensity for active duty service was higher than that for the Reserve Components. Overall, findings showed that Composite Active and Composite Reserve Propensity were more likely to be expressed by males and females who were:

- young (especially among males);
- Black or Hispanic;
- Unmarried (except among older males);
- Of lower school status; and
- Not employed but looking for a job.

4. Youth Aptitude

A key measure of youth aptitude based on indicators developed in prior research estimates the likelihood that 16- to 21-year-old young males and young females would fall in the upper or lower half of the Armed Forces Qualification Test (AFQT) score distribution. Analyses examined propensity for the predicted AFQT groups (Category I-IIIA, Category IIIB-V) combined with school status groups.

Results showed two general patterns for active propensity. The first was an inverse relationship between positive propensity and school status. Postsecondary students consistently expressed the lowest levels of propensity; high school graduates and high school seniors the next highest levels, respectively; and younger high school students the highest levels. Non-completers fell between high school seniors and high school graduates. For example, among young males 14.0 percent of postsecondary students expressed positive composite propensity compared with 44.4 percent of younger high school students.

The second pattern was that within each educational status group, positive propensity was consistently higher among respondents in AFQT Category IIIB-V than among those in Category I-IIIA. Among young male high school graduates for example, 29.4 percent predicted to score in Category IIIB-V expressed positive composite active propensity compared to 18.9 percent of those predicted to score in Category I-IIIA. For both males and females the ratio of active Service propensity of low AFQT youth to high AFQT youth ranged from 1.5 to 2.7. The variables used to predict AFQT category, however, include a measure of interest in serving in the military that was moderately correlated with propensity and may partially explain the propensity differences between the Category I-IIIA and IIIB-V AFQT groups.

In addition to examining propensity patterns among higher and lower aptitude youth, analyses also estimated the number of youth in these groups. Among young males overall, approximately 2.1 million expressed positive composite active propensity. However, only about 854,000 higher aptitude males expressed positive propensity. Further, the numbers of higher aptitude males interested in military service varied by school status group. Approximately half of high school seniors and postsecondary students with positive propensity were predicted to have higher aptitude. The percentage of estimated higher aptitude young people then fell to about 40 percent for younger high school students and high school graduates. Less than one quarter of non-completers were expected to score in Category I-IIIA. High school seniors (253,000) and younger high school students (286,000) constituted a recruit pool with positive propensity over twice as large as that found among high school graduates (127,000), postsecondary students (72,000), or non-completers (117,000).

Overall, the percentage of young females with positive propensity was lower than young males (12.2 percent) and consequently, those expected to have higher aptitude (7.9 percent) were also lower than for comparable young males. Otherwise, young females generally followed the pattern described for young males.

In general, the findings of the relationship of predicted AFQT scores to Composite Reserve Propensity paralleled the pattern of findings described for active propensity. Among school groups, postsecondary students expressed lowest levels of propensity. High school graduates were next highest, followed by high school seniors and younger high school students. For example, among young males, 11.1 percent of postsecondary students expressed positive composite reserve propensity compared with 24.7 percent of younger high school students.

Findings also showed the pattern for much lower Composite Reserve Propensity among higher aptitude youth and young adults (Category I-IIIA AFQT scores) than among those with lower aptitude (Category IIIB-V AFQT scores). For example, among young male high school graduates predicted to score in Category I-IIIA, 14.3 percent expressed positive propensity compared with 24.0 percent of those predicted to score in Category IIIB-V.

Data on population counts indicated that about 532,000 young males and 180,000 young females with positive propensity for the Reserve Components were predicted to have higher aptitude.

The data on predicted AFQT provide useful information about expected aptitude of the YATS population. They show sizable differences between propensity of those in the higher aptitude groups (Category I-IIIA) and those in the lower aptitude groups (Category IIIB-V). Individuals with the greatest propensity for the military were less likely on average to have aptitude sought by the military either for the active force or the Reserve Components. Overall, only about four in 10 young males and one in three young females with Composite Active Propensity or Composite Reserve Propensity were predicted to have higher aptitude. These rates varied by school status groups.

Taken together, these data suggest that both positive Composite Active Propensity and Composite Reserve Propensity are useful measures to gauge the interest of youth in the active military and Reserve Components. However, propensity data should be combined with predicted AFQT scores to assess aptitude of youth and young adults and thus, to determine the number of youth that will be of greatest interest to the military.

C. Trends in Enlistment Propensity for Active Duty Military

1. Trends in Positive Propensity

Trend data were examined for the four market groups of young males and young females aged 16-21 and older males and females aged 22-24. Generally, the YATS data showed few statistically significant changes in propensity from year to year. However, statistical analyses did indicate that Composite Active Propensity and propensity for the Army, Marine Corps, and Air Force were higher during the 1980-1983 period than during the 1976-1979 or 1984-1988 periods. The Navy, however, experienced a steady decline over the three periods from 1976 to 1988.

A shift in the patterns of Service preference expressed by young males was also evident. Since 1976, propensity for the Army, Navy, Marine Corps, and Air Force showed a shift from four distinct preferences to two distinct preferences. During the 1970s, preferences for all Services were clearly

differentiated. From 1980 to 1988, preferences for the Air Force and Army converged as did those between the Navy and Marine Corps.

Differences between the yearly propensity estimates of young females were less obvious than those seen for young males. However, Composite Active Propensity for any Military Service was significantly higher during the 1980-1983 period, than during the 1984-1988 time period. Differences in yearly propensity estimates for the individual Services were very small, however. Individual Service preference patterns showed little change over time. The Air Force has consistently been the most preferred Service and the Marine Corps the least preferred.

Composite Active Propensity for older males and females was relatively low and highly stable across years, with no statistically significant changes for men (1983-1988) or for women (1986-1988).

2. Positive Propensity and the Unemployment Rate

The overall correlation between propensity and unemployment rates for young males remained relatively strong ($r=.58$). This suggests that, overall, military service appears more attractive to young men during conditions of weak or weakening employment.

To better understand the relationship between unemployment and Composite Active Propensity, Service-level analyses were conducted. The correlations between the youth unemployment rate and propensity for the Army was strongest ($r=.50$) among the individual Services and nearly as strong as the correlation with Composite Active Propensity. The correlations between the unemployment rate and propensity for the other Services were much lower ($r=.11$ for the Navy, $.04$ for the Marine Corps, and $.29$ for the Air Force).

Taken together, these data suggest that the relationship between unemployment and Composite Active Propensity is explained primarily by propensity for the Army. That is, since composite propensity is computed from the individual Service propensities, and the Army shows a significant relationship to unemployment rates but the other Services do not, it follows that the Army propensity explains most of the relationship between Composite Active Propensity and unemployment.

This finding may partly result from the fact that the Army has shorter enlistment periods than the other Services. If military service during periods of higher unemployment is viewed as a temporary (but not long-term) employment solution, then shorter enlistment periods would have greater appeal. These data, of course, do not address this issue directly but do suggest that there is something distinctive about propensity for the Army and unemployment rates.

In contrast to the findings for young men, the correlation between unemployment rates and propensity for young women was very low ($r=.05$). This suggests that young women were little influenced by the economic or employment conditions of the surrounding community and did not see the military as a logical alternative to civilian employment.

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APPENDIX A: SUPPLEMENTARY TABLES

Table A.1. Estimates of Sociodemographic Characteristics
of Survey Population

Characteristic	Young Males (N=5,486)	Older Males (N=1,130)	Young Females (N=3,271)	Older Females (N=1,098)
<u>Age^a</u>				
16 (22)	24.4 (0.9)	35.4 (0.8)	22.6 (0.9)	32.4 (1.7)
17 (23)	25.3 (0.8)	32.8 (1.7)	23.8 (0.8)	34.8 (1.7)
18 (24)	17.9 (0.8)	31.8 (1.8)	18.0 (0.8)	32.9 (1.7)
19	15.3 (0.7)		15.6 (0.7)	
20	8.8 (0.5)		10.1 (0.7)	
21	8.3 (0.7)		9.9 (0.6)	
<u>Race/Ethnicity</u>				
White	75.7 (0.9)	76.6 (1.6)	75.6 (0.9)	76.5 (1.5)
Black	10.4 (0.6)	8.2 (1.1)	11.8 (0.7)	10.7 (1.1)
Hispanic	10.8 (0.6)	12.2 (1.3)	9.6 (0.6)	10.4 (1.1)
Other	3.2 (0.3)	3.0 (0.6)	3.0 (0.4)	2.3 (0.5)
<u>Marital Status</u>				
Never married	96.9 (0.3)	64.6 (1.8)	88.2 (0.7)	38.5 (1.8)
Currently married	2.6 (0.3)	32.3 (1.8)	9.9 (0.7)	51.0 (1.8)
Other ^b	0.5 (0.1)	3.2 (0.6)	1.8 (0.3)	10.4 (1.2)
<u>School Status</u>				
Postsecondary student ^c	15.7 (0.7)	9.6 (1.1)	18.7 (0.9)	8.5 (1.0)
High school graduate	19.4 (0.9)	64.1 (1.8)	23.3 (0.9)	68.2 (1.7)
High school senior	20.0 (0.8)	-- --	19.0 (0.8)	0.1 (0.1)
Young high school student	23.8 (0.9)	-- --	20.6 (0.8)	-- --
Non-completer	21.1 (0.9)	26.3 (1.6)	18.5 (0.8)	23.3 (1.5)
<u>Employment Status</u>				
Employed full-time	29.8 (1.0)	81.0 (1.4)	21.9 (0.8)	51.6 (1.8)
Employed part-time	30.3 (0.9)	9.5 (1.2)	33.3 (0.9)	15.5 (1.3)
Not employed, looking	20.0 (0.8)	6.2 (0.8)	21.2 (0.8)	9.9 (1.1)
Not employed, not looking	19.9 (0.8)	3.2 (0.7)	23.7 (0.9)	23.0 (1.5)

Note: Tabled values are column percentages with standard errors in parentheses.
Percentage distributions may not sum to 100.0 due to rounding.

^aAges 22-24 apply to older males and older females.

^b"Other" includes widowed, divorced, and separated.

^cPostsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; no estimate reported.

Source: Questions 402, 403, 404, 406, 407, 408A, 416, 417, 713C, 714, 715.

Table A.2. Positive Propensity to Serve in the Active Military

Propensity Measures	Market Groups			
	Young Males (N=5,486)	Older Males (N=1,130)	Young Females (N=3,271)	Older Females (N=1,098)
Composite Active Propensity ^a	32.1 (1.0)	14.0 (1.3)	12.2 (0.7)	5.0 (0.8)
Army	15.2 (0.7)	6.3 (0.9)	5.8 (0.5)	2.6 (0.6)
Navy	12.3 (0.7)	4.7 (0.7)	4.6 (0.4)	2.2 (0.5)
Marine Corps	12.0 (0.7)	4.8 (0.7)	3.2 (0.4)	1.6 (0.4)
Air Force	16.4 (0.7)	6.8 (0.9)	7.7 (0.6)	3.4 (0.6)
Coast Guard	8.1 (0.5)	5.2 (0.8)	2.8 (0.3)	1.5 (0.4)
Unaided Mentions	6.6 (0.6)	0.5 (0.2)	1.3 (0.2)	0.5 (0.2)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

^aPropensity to serve in at least one active Service. Coast Guard propensity is not included in composite.

Source: Questions 402, 438, 441, 509-513.

Table A.3. Service-Specific and Composite Active Propensity

Market/Group Response	Composite Active Propensity*	Army	Navy	Marine Corps	Air Force
Young Males					
Definitely	7.4 (0.5)	2.3 (0.3)	2.0 (0.4)	1.8 (0.2)	3.0 (0.3)
Probably	24.7 (0.9)	12.9 (0.7)	10.3 (0.6)	10.1 (0.6)	13.4 (0.7)
Total Positive	32.1 (1.0)	15.2 (0.7)	12.3 (0.7)	12.0 (0.7)	16.4 (0.7)
Probably Not	28.5 (1.0)	29.8 (1.0)	30.0 (1.0)	28.9 (0.9)	31.3 (1.0)
Definitely Not	41.2 (1.0)	54.9 (1.0)	57.5 (1.0)	58.9 (1.0)	52.1 (1.0)
Don't Know/Refuse	0.1 (0.1)	0.3 (0.1)	0.2 (0.1)	0.2 (0.1)	0.2 (0.1)
Total Negative	67.9 (1.0)	84.8 (0.7)	87.7 (0.7)	88.0 (0.7)	83.6 (0.7)
Older Males					
Definitely	2.1 (0.5)	0.9 (0.3)	0.4 (0.2)	1.0 (0.3)	0.9 (0.3)
Probably	11.9 (1.2)	5.4 (0.8)	4.2 (0.7)	3.8 (0.7)	5.9 (0.8)
Total Positive	14.0 (1.3)	6.3 (0.9)	4.7 (0.7)	4.8 (0.7)	6.8 (0.9)
Probably Not	28.5 (1.6)	24.2 (1.5)	24.1 (1.5)	23.9 (1.5)	26.9 (1.6)
Definitely Not	59.3 (1.8)	69.3 (1.7)	70.9 (1.6)	71.2 (1.6)	67.1 (1.7)
Don't Know/Refuse	0.1 (0.1)	0.3 (0.1)	0.1 (0.1)	0.2 (0.1)	0.2 (0.1)
Total Negative	86.0 (1.3)	93.7 (0.9)	95.3 (0.7)	95.2 (0.7)	93.2 (0.9)
Young Females					
Definitely	2.8 (0.3)	0.7 (0.2)	0.7 (0.2)	0.4 (0.1)	1.3 (0.2)
Probably	9.6 (0.6)	5.1 (0.5)	3.9 (0.4)	2.8 (0.4)	6.4 (0.5)
Total Positive	12.2 (0.7)	5.8 (0.5)	4.6 (0.4)	3.2 (0.4)	7.7 (0.6)
Probably Not	18.2 (0.8)	16.8 (0.8)	16.7 (0.8)	16.3 (0.7)	17.8 (0.8)
Definitely Not	69.5 (0.9)	77.2 (0.9)	78.5 (0.8)	80.3 (0.8)	74.3 (0.9)
Don't Know/Refuse	0.1 (0.1)	0.2 (0.1)	0.1 (0.1)	0.2 (0.1)	0.2 (0.1)
Total Negative	87.8 (0.7)	94.2 (0.5)	95.4 (0.4)	96.8 (0.4)	92.3 (0.6)
Older Females					
Definitely	1.1 (0.3)	0.5 (0.2)	0.1 (0.1)	0.2 (0.2)	0.8 (0.3)
Probably	3.9 (0.7)	2.1 (0.5)	2.1 (0.5)	1.3 (0.4)	2.6 (0.6)
Total Positive	5.0 (0.8)	2.6 (0.6)	2.2 (0.5)	1.6 (0.4)	3.4 (0.6)
Probably Not	14.4 (1.3)	12.7 (1.2)	12.0 (1.2)	11.5 (1.2)	12.7 (1.2)
Definitely Not	80.8 (1.4)	84.8 (1.3)	85.8 (1.2)	86.9 (1.2)	83.7 (1.3)
Don't Know/Refuse	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)	0.3 (0.2)
Total Negative	95.0 (0.8)	97.4 (0.6)	97.8 (0.5)	98.4 (0.4)	96.6 (0.6)

Note: Tabled values are percentages with standard errors in parentheses. Estimates are based on interviews with 5,486 young males, 1,136 older males, 3,271 young females, and 1,898 older females. Total positive and total negative values may differ slightly from the sum of their respective components due to rounding error.

*Propensity to serve in at least one active Service.

Source: Questions 402, 510-513.

Table A.4. Positive Composite Active Propensity as a Function of Selected Sociodemographic Characteristics

Characteristic		Young Males (N=5,486)	Older Males (N=1,130)	Young Females (N=3,271)	Older Females (N=1,098)
<u>Age*</u>					
16	(22)	44.2 (2.1)	16.3 (2.2)	18.2 (1.5)	4.2 (1.2)
17	(23)	35.9 (1.7)	10.4 (1.8)	13.7 (1.4)	4.4 (1.2)
18	(24)	28.3 (2.3)	15.2 (2.5)	11.1 (1.6)	6.4 (1.6)
19		26.9 (2.8)		12.1 (1.7)	
20		19.4 (2.6)		6.5 (1.5)	
21		16.6 (2.8)		7.7 (1.9)	
<u>Race/Ethnicity</u>					
White		27.8 (1.1)	9.5 (1.2)	8.4 (0.7)	1.8 (0.5)
Black		49.3 (3.0)	35.8 (6.8)	28.8 (2.6)	10.9 (3.0)
Hispanic		42.8 (2.9)	26.9 (4.7)	18.4 (2.4)	19.5 (4.6)
Other		44.1 (5.4)	21.8 (7.4)	22.8 (5.1)	17.9 (8.4)
<u>Marital Status</u>					
Never married		32.6 (1.0)	15.6 (1.7)	13.6 (0.7)	6.9 (1.4)
Currently married		12.0 (2.8)	12.0 (2.0)	5.2 (1.4)	3.3 (0.9)
Other ^b		21.1 (7.2)	17.6 (6.8)	11.8 (5.7)	8.4 (2.6)
<u>School Status</u>					
Postsecondary student ^c		6.8 (0.9)	6.8 (2.2)	10.5 (1.7)	4.1 (2.9)
High school graduate		14.3 (1.4)	53.3 (4.7)	18.5 (2.3)	50.9 (7.8)
High school senior		23.3 (1.5)	-- --	18.5 (2.1)	-- --
Young high school student		32.9 (1.7)	-- --	29.5 (2.6)	-- --
Non-completer		22.7 (1.6)	39.9 (4.6)	23.0 (2.6)	45.1 (7.9)
<u>Employment Status</u>					
Employed full-time		25.8 (1.8)	13.9 (1.4)	10.8 (1.4)	4.5 (0.9)
Employed part-time		33.1 (1.7)	7.8 (2.8)	12.0 (1.2)	4.6 (2.1)
Not employed, looking		44.0 (2.3)	26.5 (5.8)	18.0 (1.7)	9.0 (3.4)
Not employed, not looking		28.4 (2.0)	13.5 (6.2)	8.8 (1.1)	4.7 (1.6)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

*Ages 22-24 apply to older males and older females.

^b"Other" includes widowed, divorced, and separated.

^cPostsecondary students are high school graduates currently attending college or a business/vocational school.

-- Low precision; estimate not reported.

Source: Questions 402, 403, 404, 406, 407, 408A, 416, 417, 510-513, 713C, 714, 715.

Table A.6. Propensity to Enlist in the National Guard and Reserves

Market Group/ Response	Composite Reserve Propensity*	National Guard	Reserve
Young Males			
Definitely	1.9 (0.2)	0.8 (0.1)	1.5 (0.2)
Probably	18.5 (0.8)	11.4 (0.6)	14.4 (0.7)
Total Positive	20.5 (0.8)	12.2 (0.7)	15.9 (0.7)
Probably Not	32.3 (1.0)	32.3 (0.9)	34.0 (1.0)
Definitely Not	47.0 (1.0)	55.2 (1.0)	49.7 (1.0)
Don't Know/Refuse	0.2 (0.1)	0.3 (0.1)	0.4 (0.1)
Total Negative	79.5 (0.8)	87.8 (0.7)	84.1 (0.7)
Older Males			
Definitely	1.0 (0.3)	0.7 (0.3)	0.8 (0.3)
Probably	11.4 (1.1)	7.3 (0.9)	8.8 (1.0)
Total Positive	12.5 (1.2)	8.0 (0.9)	9.6 (1.1)
Probably Not	28.0 (1.7)	26.9 (1.6)	27.8 (1.7)
Definitely Not	59.4 (1.8)	64.8 (1.7)	62.3 (1.8)
Don't Know/Refuse	0.2 (0.2)	0.3 (0.2)	0.3 (0.2)
Total Negative	87.5 (1.2)	92.0 (0.9)	90.4 (1.1)
Young Females			
Definitely	1.0 (0.2)	0.5 (0.1)	0.7 (0.2)
Probably	7.7 (0.5)	4.3 (0.4)	5.9 (0.5)
Total Positive	8.6 (0.6)	4.8 (0.5)	6.7 (0.5)
Probably Not	18.1 (0.8)	17.8 (0.8)	18.5 (0.8)
Definitely Not	73.0 (0.9)	77.2 (0.9)	74.5 (0.9)
Don't Know/Refuse	0.2 (0.1)	0.2 (0.1)	0.3 (0.1)
Total Negative	91.4 (0.8)	95.2 (0.5)	93.3 (0.5)
Older Females			
Definitely	0.7 (0.3)	0.2 (0.1)	0.7 (0.3)
Probably	3.8 (0.6)	2.3 (0.5)	3.0 (0.6)
Total Positive	4.3 (0.7)	2.5 (0.6)	3.6 (0.6)
Probably Not	12.9 (1.2)	12.9 (1.2)	12.6 (1.2)
Definitely Not	82.7 (1.3)	64.5 (1.3)	83.8 (1.3)
Don't Know/Refuse	0.1 (0.1)	0.1 (0.1)	0.2 (0.1)
Total Negative	95.7 (0.7)	97.5 (0.6)	96.4 (0.6)

Note: Tabled values are percentages with standard errors in parentheses.
 Estimates are based on interviews with 5,486 young males, 1,130 older males,
 3,271 young females, and 1,098 older females. Total positive and total
 negative values may differ slightly from the sum of their respective
 components due to rounding error.

*Propensity to serve in at least one Reserve Component.

Source: Questions 402, 505, 507.

Table A.6. Positive Composite Reserve Propensity to Serve
in the Reserve Components

Propensity Measures	Market Groups			
	Young Males (N=5,488)	Older Males (N=1,130)	Young Females (N=3,271)	Older Females (N=1,098)
Composite Reserve Propensity	20.5 (0.8)	12.5 (1.2)	8.6 (0.6)	4.3 (0.7)
<u>National Guard</u>	12.2 (0.7)	8.0 (0.9)	4.8 (0.5)	2.5 (0.6)
Army National Guard	7.5 (0.5)	4.5 (0.7)	2.7 (0.3)	1.6 (0.4)
Air National Guard	4.3 (0.4)	3.1 (0.6)	2.1 (0.3)	0.9 (0.3)
<u>Reserves</u>	15.9 (0.7)	9.6 (1.1)	6.7 (0.5)	3.6 (0.6)
Army Reserve	8.0 (0.5)	3.4 (0.7)	2.4 (0.3)	1.3 (0.3)
Navy Reserve	2.4 (0.4)	1.0 (0.4)	1.0 (0.2)	0.1 (0.1)
Marine Corps Reserve	2.3 (0.3)	1.0 (0.3)	0.7 (0.2)	0.6 (0.3)
Air Force Reserve	4.0 (0.4)	2.8 (0.5)	2.2 (0.3)	1.2 (0.4)
Coast Guard Reserve	1.0 (0.2)	1.2 (0.4)	0.3 (0.1)	0.3 (0.2)
<u>Unaided mentions</u>	2.1 (0.3)	1.1 (0.4)	0.8 (0.2)	0.1 (0.1)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

aPositive propensity to serve in at least one Reserve Component.

Source: Questions 402, 438, 441, 505-508.

Table A.7. Positive Composite Reserve Propensity as a Function of Selected Sociodemographic Characteristics

Characteristic	Young Males (N=5,486)	Older Males (N=1,130)	Young Females (N=3,271)	Older Females (N=1,098)
Age*				
16 (22)	23.9 (1.7)	13.8 (2.1)	10.3 (1.2)	2.8 (0.9)
17 (23)	22.8 (1.5)	10.2 (1.7)	9.4 (1.2)	4.6 (1.2)
18 (24)	17.1 (1.6)	13.2 (2.2)	9.6 (1.5)	5.6 (1.5)
19	21.8 (2.4)		8.2 (1.3)	
20	16.6 (2.5)		6.4 (1.3)	
21	12.9 (2.2)		6.4 (1.8)	
Race/Ethnicity				
White	16.7 (0.9)	9.1 (1.2)	5.5 (0.5)	2.0 (0.5)
Black	36.8 (3.0)	27.6 (6.2)	23.8 (2.6)	13.1 (3.7)
Hispanic	27.2 (2.4)	22.6 (4.1)	13.5 (2.4)	11.2 (3.7)
Other	30.7 (6.3)	13.0 (6.0)	10.0 (3.6)	9.2 (6.3)
Marital Status				
Never married	20.6 (0.8)	11.1 (1.4)	9.2 (0.6)	6.5 (1.4)
Currently married	3.0 (1.7)	13.5 (2.2)	2.8 (0.9)	2.3 (0.8)
Otherb	5.2 (0.3)	28.3 (8.6)	9.1 (4.5)	6.2 (2.5)
School Status				
Postsecondary studentc	8.6 (1.2)	9.2 (2.7)	13.0 (2.2)	7.7 (4.5)
High school graduate	17.8 (1.8)	56.2 (4.9)	17.7 (2.8)	48.6 (8.5)
High school seniors	22.6 (1.7)	0.0 (0.0)	20.0 (2.6)	0.0 (0.0)
Young high school student	28.7 (2.0)	0.0 (0.0)	25.5 (2.8)	0.0 (0.0)
Non-completer	22.3 (1.8)	34.7 (4.6)	23.8 (3.1)	43.8 (8.6)
Employment Status				
Employed full-time	19.6 (1.5)	12.9 (1.3)	7.6 (1.2)	3.6 (0.9)
Employed part-time	20.9 (1.5)	6.5 (2.6)	8.3 (1.6)	7.7 (2.5)
Not employed, looking	28.2 (2.0)	19.4 (4.9)	13.0 (1.5)	6.7 (2.8)
Not employed, not looking	14.3 (1.6)	6.7 (5.4)	6.3 (0.9)	2.7 (1.2)

Note: Tabled values are percentages of each category with positive propensity. Standard errors are in parentheses.

*Ages 22-24 apply to older males and older females.

b"Other" includes widowed, divorced, and separated.

cPostsecondary students are high school graduates currently attending college or a business/vocational school.

Source: Questions 402, 403, 404, 406, 407, 408A, 416, 417, 505, 507, 713C, 714, 715.